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ABSTRACT

The careers of 185 previously unemployed aerospace and defense industry professionals are documented, following completion in August 1971 of a 1-month orientation to urban affairs entitled Project ADAPT (Aerospace and Defense Adaptation to Public Technology). Funded by the Labor Department and by the Housing and Urban Development Project to provide vocational retraining for careers in state and local government, both the orientation and subsequent evaluation are part of the Joint Aerospace Employment Project (AEP) of the National League of Cities/U.S. Conference of Mayors (NLC/USCM). Persons who completed the ADAPT orientation were about five times as likely to enter public service, chiefly in local government agencies, than were comparable non-participants in the program. Although the participants' civic and urban involvements increased due to this program, participant characteristics did not significantly affect either their rate of job placement or their job performance. The best predictor of successful skills adaptations was the readiness of the hiring agency to accommodate innovative management techniques. These tentative evaluations of project outcomes showed that 70 percent of the participants were professionally employed 8 months later, and almost 61 percent of those employed were in public service. Extensive resource materials were appended. (AG)

PROJECT ADAPT

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AEROSPACE EMPLOYMENT PROJECT

FINAL REPORT

Project ADAPT (Report #2)

Review and Assessment of Post-Orientation
Careers of Project Participants

Submitted to

The U.S. Department of Housing and Urban
Development (Contract #: H-1557)

The U.S. Department of Labor, Manpower
Administration (Contract #: 82-11-71-22)

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16. Abstracts

Careers of 185 previously unemployed professionals from Aerospace and Defense industries are documented following completion of a month-long orientation to Urban Affairs. 70% of the persons completing the program were professionally employed eight months later. About what could be expected without a program. But 60% of those at work are in the public service, a ratio that far exceeds few of the professional personnel into local government occupations. Most of the unassisted public agencies reported satisfactory or better performance from their recent hiree, who are at work in a variety of tasks. Preparedness of hiring agency to accomodate innovated management techniques was found to be best "prediction" of successful skills adaptation. Few significant relations were found between background attributes (age,education, industrial experience) of the professionals and either their rate of placement or their successful performance once placed. The orientation offered both cognitive and attitudinal changes in the participants, but particularly educational technique was found to be universally favored. Evaluations of project outcomes are tentatively asserted owing to the abbreviated period nominally available for monitoring and for the even shorter period of actual on-the-job experience of successfully placed program participants.

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The 185 persons who participated in the Project were the fundamental contributors to the monitoring and evaluation effort. Their earnest cooperation in evaluation exercizes at several points

during the month at MIT and afterwards was not only necessary to the process, but also gratifying to the staff as well. Special thanks go to those 120 who returned a long and difficult questionnaire and those 32 who consented to long on-site interviews at their places of work. An even smaller number of ADAPTers--through phone calls, letters, and visits to MIT--provided useful insights into the unemployment/re-employment experience which helped direct the evaluation effort. Further, they consented to test the prototype questionnaires and interview formats before the large scale effort was made. Although these tests were time-consuming, these ADAPTers cooperated cheerfully and without remuneration. Such was their sense of loyalty to Project ADAPT and its objectives.

I. SUMMARY AND CONCLUSIONS

This report documents the subsequent careers of 185 persons who, during August 1971, participated in Project ADAPT, a month-long orientation to urban affairs for then-unemployed aerospace and defense industry professionals intent on starting new careers in state and local government. That orientation in August and the monitoring and evaluation of the subsequent careers of the participants are two elements of the Joint Aerospace Employment Project (AEP) of the National League of Cities/U.S. Conference of Mayors (NLC/USCM). Two Federal departments--Housing and Urban Development, and Labor--funded this project.

Project ADAPT was evaluated from several perspectives: as a vehicle for obtaining employment for surplus technical professionals; as a means of contributing to the capacity-building objectives of Model Cities; as a means of adapting aerospace skills and technology to urban needs; and as a career transition program. The MIT orientation was assessed as a factor in the achievement of each of these goals. Also reported are findings on the kinds of aerospace and defense industry experience or technical training which seem to offer improved likelihood of successful adaptation of skills and of professional careers to urban needs. All findings must be interpreted with care because the length of the post-orientation period of evaluation justifies only tentative assertions.

As of May 31, 1972, the last date for which figures are available and 36 weeks after the group left the campus, 70% of those who participated in the MIT orientation were reported by NLC/USCM to be employed in a professional capacity. Of those so employed, almost two-thirds (61%) were in public service, mostly with agencies of local government.

The proportion in professional employment is somewhat better than what would have been expected without a re-employment project of the type mounted by NLC/USCM. But it is the type of new employment found by project participants that distinguishes AEP's achievement: persons who completed the ADAPT orientation were about five times as likely to enter public service than were re-employed aerospace and defense professionals who did not participate; moreover, of the participants who found re-employment in the the private sector--30% of the total enrollment--about one in four reports that he is working on projects related to the urban issues, problems and topics that were the focus of the orientation. Further, regardless of current employment status--public, private or unemployed--better than one in four has increased his involvement in local civic affairs: from seeking elective office to voluntary work with local governments and action groups. These findings lead to the conclusion that the municipal professional manpower needs of the Nation and the personnel needs of industries that provide services to urban areas can be increasingly served by professionals willing to adapt themselves and their careers to these needs.

Program participants have taken a variety of positions with considerable managerial and technical challenge; representative examples are cited throughout the report. Few statistically significant associations were found, however, between various groupings of participants--based on characteristics such as age, education, length of industrial experience, geographic origin, background in civic activity, or participation during the orientation--and either success in finding subsequent employment or effective performance once on the job. The best "predictor" of post-orientation employment was the length of unemployment before the orientation: persons with a longer history of unemployment had greater difficulty in finding employment after the orientation than did those with a shorter history of unemployment. This indicates that some participants might have problems that an orientation and a job development and placement program cannot, by themselves, alleviate.

Persons with more general managerial and organizational experience moved more readily into public service than did persons with narrower experience in a "hard" engineering specialization. This observation is made from both data on placements and on performance, and confirms the wisdom of the early AEP selection criteria. The participants most often described their frustrations in their new jobs as "people problems," and it is people problems that "hard" engineers had less responsibility for in their previous industrial employment. This generalization notwithstanding, there are a number of individuals who have moved from "hard" industrial to "hard" public service.

Survey and interview results clearly indicate that more effective performance and greater use of advanced management techniques--what the aerospace and defense professionals were expecting in their new jobs--occurred earliest in those agencies that had a clearly specified, pre-existing need for these services: in short, the better prepared were the agencies, the more effectively utilized were the men recruited from ADAPT. In fact, agency manpower planning was a key contributor to this early success. The better-prepared agencies targeted their hiring efforts precisely and then utilized their newly hired professionals most effectively. This finding leads directly to the recommendation that greater resources be assigned to a more thorough development of the demand-side of this quasi-market placement process.

The participants now in public service reported that the orientation was extremely helpful. Their suggestions for changes in the content of the orientation reflect the type of work they are now doing. Those now in generalist and executive staff positions would have liked more emphasis on topics such as bureaucracy and organization; those now working in more clearly circumscribed areas would have liked emphasis on the functional specialties for which they now have some responsibility.

Similarly, when the several modes of orientation were compared, about as many ADAPTers favored lectures and panels as did those favoring "hands-on" experience, field trips and simulations. Evidently the group was large enough to include several sub-groups with distinct preferences for different educational techniques. This justifies continued use of a varied rather than a uniform orientation program.

Results of participant surveys prior to, at the conclusion of, and six months after the orientation, indicate attitudinal and cognitive changes among the participants, particularly with respect to urban problems and politics. In formal interviews and in spontaneous discussions, participants acknowledged that they now had a "feel" for politics, or, as one ADAPTer summarized his experience. "You legitimized politics. That's going some for a number pusher." Yet the feeling persists that this aspect of the orientation--introduction to the management styles in local government--needed more thorough development. In evaluations of job performance, the ADAPTer and, particularly, his supervisor made frequent reference to the ADAPTer's incomplete or unwilling acknowledgement of the "small 'p' politics" of agency life. In a few cases, this was a lack sufficiently large to jeopardize the effectiveness if not the survival of the ADAPTer. This finding suggests that although ADAPTers seemed intellectually aware of the need for political sensitivity, this awareness was not sufficiently developed for some to alter their professional demeanor and actions. A remedy, in subsequent programs, could be an even stronger emphasis on this aspect, including such devices as political simulations that require greater role-playing experience. Also needed is even more straight-from-the-shoulder advice from government professionals than had been built into the ADAPT orientation.

II. REVIEW OF PROJECT OBJECTIVES AND ACTIVITIES

INTRODUCTION

In August 1971, MIT conducted a month-long orientation in urban affairs to prepare 135 unemployed aerospace scientific and technical personnel for new careers in agencies of state, county and municipal government. The August orientation and the subsequent evaluation effort were to be MIT's contribution to a larger enterprise--designated the Aerospace Employment Project (AEP)--being carried out by the National League of Cities/U. S. Conference of Mayors (NLC/USCM) under the joint sponsorship of the U. S. Departments of Labor and of Housing and Urban Development.

The aim of the larger enterprise--the AEP--is to demonstrate the feasibility of redeploying surplus technical manpower into the public service at state and local levels of government. The Project sponsor views redeployment of this sort as a means both to alleviate the unemployment in industry based on science and technology and to help satisfy the professional manpower needs of the Nation's cities and states.

To this end, NLC/USCM conceived of a five-element program of personnel recruitment, job development, career orientation, job placement and evaluation. For recruitment, job development and placement, NLC/USCM organized the efforts of local state employment services, public personnel specialists, public service organizations (International City Management Association, National Association of Counties, Council of State Governments, the National Governor's Conference, and the Public Personnel Association) and individual cities and states to identify available positions. The municipal leagues in five states--Ohio, Texas, Georgia, Michigan and Pennsylvania--were under contract to NLC/USCM to develop prototype jobs and job-matching networks. Thus, the NLC/USCM hoped to demonstrate its ability to organize a nationwide talent search among unemployed technical personnel, to provide a brief academic orientation for them, and to then place them in public agencies by utilizing the NLC/USCM's resources in Washington and those of counterpart state and municipal organizations in the state capitals. The NLC/USCM was attempting more than a "one-shot" orientation. It was testing the whole procedure of finding technical people, acquainting them with urban problems and the institutions that deal with such problems, and then placing them where their talents could be appropriately used in service of the city. Figure 1 maps the flow of persons through the several phases of AEP.

MIT, through Project ADAPT (Aerospace and Defense Adaptation to Public Technology) participated in the orientation and evaluation elements of this design. (A counterpart program--embracing the

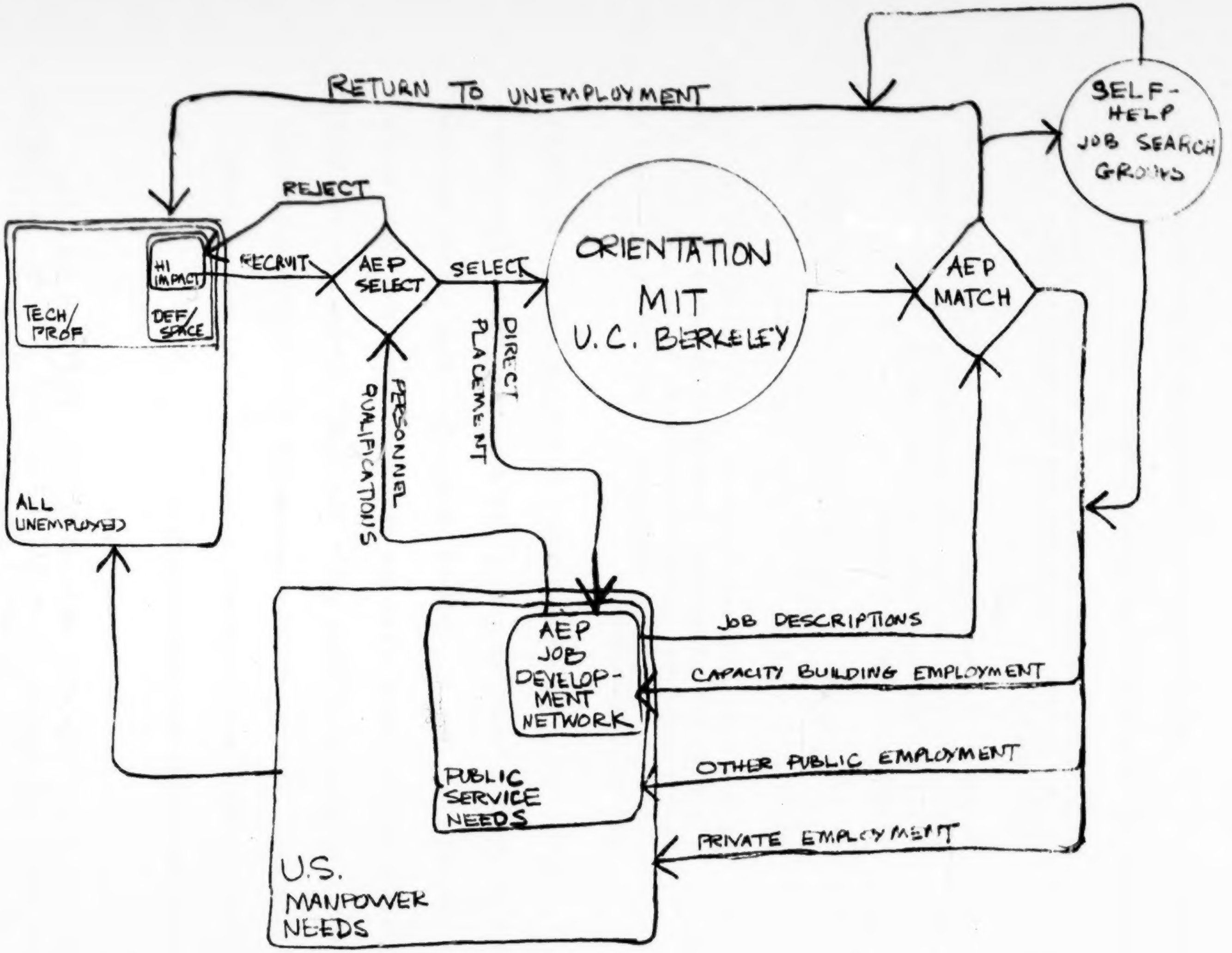
RETURN TO UNEMPLOYMENT
SELF-HELP JOB SEARCH GROUPS
REJECT
HI IMPACT
DEF/SPACE
TECH/PROF
ALL UNEMPLOYED
RECRUIT
AEP SELECT
SELECT
DIRECT PLACEMENT
PERSONNEL QUALIFICATIONS
ORIENTATION MIT U.C. BERKELEY
AEP MATCH
AEP JOB DEVELOPMENT NETWORK
PUBLIC SERVICE NEEDS
U.S. MANPOWER NEEDS
JOB DESCRIPTIONS
CAPACITY BUILDING EMPLOYMENT
OTHER PUBLIC EMPLOYMENT
PRIVATE EMPLOYMENT

FIGURE 1: SEQUENCE OF AEP TASKS WITH IDENTIFICATION OF ACTORS

same two elements--was developed for technical personnel in the western U. S. at the University of California at Berkeley.) The objectives of the ADAPT orientation program were:

- to provide a general orientation to urban issues and to the actors, organizations, and institutions of local government;
- to sensitize the orientees to the problems they are likely to face in adapting engineering and aerospace professional experience to the complex tasks of urban development and management;
- to familiarize the participants with the intergovernmental relations (fiscal, political and institutional) particular to each of several issue areas;
- to introduce the participants to the breadth of the urban planning and management enterprise by means of lectures, panels and small group discussions, films, gaming and computer simulation exercises, case studies, field trips and selected readings.

A report describing the design, execution and planned evaluation of Project ADAPT as a means of achieving these objectives was submitted to the NLC/USCM in late 1971. That report included a listing of the characteristics of the enrolees and their evaluation of program activities while the ADAPT orientation was still in progress. The report is supplemented by a Apendix containing samples of study aids, rosters of faculty, staff and enrolees, program schedules and bibliography.*

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*The report and appendix entitled Project ADAPT: Report #1, Description and Review of the MIT Orientation Program: An Element of the NLC/USCM Joint Aerospace Employment Project, is available from the National Technical Information Service, Springfield, Virginia 22151.

DESIGN OF THE ORIENTATION PROGRAM

Requirements of the NLC/USCM

The NLC/USCM was certain that a narrow, technically specialized training would not serve project objectives. NLC/USCM was to recruit program participants from what it called the "soft side of aerospace," which meant persons whose original training might have been technical but whose recent experiences were in management, budgeting, program analysis, technical writing or marketing. Once oriented, these men would be placed in middle-management positions in cities, rather than in narrowly technical positions. Such positions would be predominantly with mayors or chief executives, or with central budgeting or central planning organizations, which in many cities are a part of the executive level.

The NLC/USCM made clear that it required a generalist orientation, and MIT was dissuaded from delving too deeply in any specific area. The NLC/USCM's firmness on this point influenced subsequent decisions about curriculum and staff. The purpose of the month's orientation was to familiarize the enrollees with the institutions, the actors and the political and social forces of the public sector, which in terms of decision making and action, make it a very different working environment from what the enrollees had experienced in the private sector.

Curriculum Design

MIT determined early that rather than propound a single orthodoxy or point of view about any urban matter, the orientation program would be designed to provide as wide a variety of urban experience, speakers and activities as could possibly be fit into the 20 working days of the program. It was decided that the orientation should be experience-broadening, a sensitization to a range of new issues, in a variety of settings and institutions--an introduction to new problems as well as to new opportunities. This determination was based on the nature of the student group: enrollees had been away from conventional academic surroundings for years, and had throughout their careers done most of their learning on the job.

Persons experienced in mid-career training advised the Project that the prospective enrollees, being at a later stage of development both intellectually and professionally, were no longer learning from texbtooks or from abstract principles applied to concrete cases. They had become adept at learning from experience, applications and cases. This emphasis on cases and applications rather than on textbook exposition prompted the basic design decision of recruiting as many teachers as possible with direct agency or consultative experience for that 20-day orientation period. Furthermore, since the Project was sensitizing men to a totally new range of issues rather than propounding the doctrine of a single profession, a program would have to be structured to bring to the surface the divergent views and controversies that accompany each urban issue.

The pedagogic device chosen to do this was the panel discussion, in which several practitioners, citizens or academicians with different points of view and sets of experience would analyze and discuss the same issue area. This was the dominant form of Project ADAPT's in-house orientation.

An early problem for Project staff was to guage the magnitude and direction of psychic shift required in a move from the aerospace and defense work environment to that of state or local government agencies. Students of administration and organization have reported that the environments differ in structure of authority, perceptions of professional ethical behavior, systems of rewards and sanctions, self-image, and other dimensions of sociology and organizational and social psychology.

In the short time available for project planning, only passing consideration could be given to this psychological re-orientation. In consultation with the MIT Dean for Institute Relations (a psychiatrist), it was determined that all faculty and staff should be aware of the difficulties and should address them directly when they emerged. Also, the Institute's personal counselling resources were made available to ADAPT participants if needed. (As it developed no request for these services occurred during the August Orientation.)

Detailed Curriculum Design

An Institute-wide Advisory Committee--composed of faculty members from a variety of fields and with an interest or experience in urban problems--concurred in the experience-foremost approach for the MIT orientation. The primary emphasis was to be on learning through experience--in some cases through direct experience--but predominantly by closely viewing the experience of others. All the enrollees would participate in activities such as film viewings, gaming simulations and field trips. The Advisory Committee established the following four principal issue areas to be explored:

1. urban growth and development;
2. environment and technology;
3. the design and delivery of social services;
4. management and change in public agencies.

One week of class time was to be devoted to each of these four themes, introduced at the beginning of the week by a single lecturer, who would provide a conceptual framework for the concrete issues to be dealt with during that week. On each day, particular elements of the theme were to be developed by individuals participating in panel discussions.

As previously described, panel discussions were to be used to identify the views and controversies surrounding each issue area in urban affairs. Panelists were chosen to meet this purpose. Each participant was to be an expert in his own right, and, over the course of a professional career, was to have had considerable experience with particular constituencies or parties in urban controversies. Each of the panelists was expected to share his experience as a representative of a particular constituency or of a particular ideological point of view.

The panels were to be followed by small group discussions, where each panelist would lead discussion, answer questions and further develop his views before a randomly chosen, smaller group of enrollees. These discussions were to occur after the morning orientation panels.

The remainder of the afternoons were to provide opportunities for enrollees to pursue individual interests. This was to be accomplished by field trips, computer gaming simulation exercises, an urban film program, an evening forum series and a two-day city reconnaissance. Each of these elements is described in greater detail in the section of this report entitled "Selected Program Components."

THE PROGRAM IN PROGRESS

This section describes the events of the four-week orientation period at MIT. Each day's events are explained in terms of program objectives and means taken by guest lecturers to achieve those objectives.

The MIT orientation was organized around four main themes listed above. The development of each theme incorporated both conceptual analyses and discussions of concrete issues. One week of class time was devoted to each theme, outlined at the outset by a lecturer who provided a conceptual framework for the concrete issues to be dealt with during the week. Each day particular elements of the theme were developed by individual experts in panel discussions or in topical lectures.*

Selection of the four themes and order of their presentation followed a straightforward logic. The themes embrace the span of current and emerging concerns of state and local government in the U. S. They are all spheres of activity that provide wide opportunity for professional involvement at the middle-management level. They provided the enrollees with a close-up view of the working environments in which they, as professionals in government, would find themselves. Moreover, many of the speakers and panelists were chosen to provide the enrollees with a sense of the professional roles they might play in the future.

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*The section of Project ADAPT: Report #1 entitled "Selected Program Components," pp.45-64, describes in detail the organization of the panel and small group discussions, lectures and other events.

The order of thematic presentation moved from the tangible, highly imageable issues in physical development and technology to the "softer" issues of social and organizational development--a movement from the relatively "hard and fast" problems of the cityscape to the elusive topics of professional competence in the civil service.

Week 1: August 2-6

Urban Growth and Development

The first week's program focused on the physical, social and political development of the urban region. Lectures, panel discussions, and field trips explored the ways in which private development is molded to achieve public purposes and, conversely, to meet the demands for public services generated by physical and social development. Emerging political constituencies in cities and suburbs were identified, particularly those that have emerged in response to the processes of physical development. Among the concomitants of metropolitan development examined were the racial and economic polarization of city and suburb, the institutional means for ameliorating this and other problems, the impact of renewal and redevelopment policies on central areas, and the emergence of such new forms of urban development as new communities.

Week 2: August 9-13

Environment and Technology

The second week's objective was to examine the manifold and complex interactions between urban development and the regional ecosystem: the intrusion of an artificial environment into the natural one. Means of ameliorating the excesses of pollution were considered, as was the interrelation between built form and social life. A city reconnaissance, an unescorted, on-site examination and documentation of life in various Boston metropolitan areas, gave participants an opportunity to see cities in fresh ways by using novel methods for observation, recording, and reporting city experience.

Transportation--a technology with serious environmental consequences and also a powerful force shaping urban forms and functions --was examined in greater detail at the close of the week. As in the case of intrusion of manmade environments into natural areas, transportation development was found to have caused similar disruption, but in manmade rather than natural, environments. Economic, social and political consequences of transportation development for cities were explored.

Week 3: August 16-20

Design and Delivery of Social Services

This segment provided an overview of the division of responsibility and accountability (both institutional and fiscal) among and between levels of government and public, private and voluntary providers of social services; the techniques of design, operation and analysis of social service delivery; and the political environment which produces operational decisions about urban services.

The week began with a review of established municipal service functions: housing, health, education, city and regional planning, law enforcement and criminal justice, welfare and education. It then examined the impact of local coordinative approaches like those of Model Cities and community action agencies. It concluded by exploring alternatives to the historic functions of municipal agencies and the bureaucracies they have nurtured--alternatives such as direct income transfers to individuals; establishment of community development corporations; and revenue-sharing among units of government.

Week 4: August 23-27

Agency Management and Change

One of the objectives of the orientation was to review the opportunities and constraints on individual attempts to expedite innovation and change in public institutions and services. The last week was devoted to a general view of how those agencies deal with change and to strategies available for precipitating change in a public agency setting.

Panalists with experience in bringing about specific innovations in municipal agencies related the substantive and methodological issues involved. Lecturers compared managerial styles in governmental agencies to those in private industry. One day was devoted to examining ways in which individuals adapt to the distinctive requirements of public agency employment and remain effective professionals. The week, and the orientation program, concluded with a familiarization with some of the sources of technical assistance and professional in-service training available to municipal staff agencies.

Coincidentally, all on-campus job interviews arranged by the NLC/USCM occurred during the final week in August. Interviews for 70 positions were held by representatives from agencies in the cities of Boston, Cleveland and New York and from several locations in Wisconsin. NLC/USCM coordinated the interviewing, using the facilities of the MIT Placement Bureau.

PROJECT EVALUATION PLANS

Introduction

Over a quarter of ADAPT'S total effort was devoted to a documentation and assessment of the orientation itself and of the new careers of the ADAPT alumni. This effort was made in order to inform future decisions in the areas of municipal manpower planning, mid-career education, professional employment, generally, and the redirection of surplus technical manpower, particularly.

Specifically, the evaluation identifies the particular strengths and apparent limitations of intensive, on-campus orientations as a means of expediting mid-career shifts. The dynamics of career change and the problems of lateral entry to the public service are also identified.

The documentation began while the program was in progress; the purposes, methods and the results of that work were reported in full in Project ADAPT: Report #1 and will not be repeated here.* The purposes and methods of the continuing evaluation are described in the following section.

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*Purposes and methods are outlined in Project ADAPT: Report #1, Chapter VI, Part A, "Concurrent Monitoring and Evaluation," pp. 65-67; results of that work are found in Chapter V "Analysis of Program Design, Logistics and Components," pp. 33-64.

Post-Orientation Monitoring and Evaluation

The original agreement between NLC/USCM and MIT about post-orientation monitoring and evaluation assumed that:

1) most ADAPT enrollees would be placed in public service employment within three or four months after the end of the August orientation; and

2) most of the positions would be in Model Cities agencies, with mayors or city chief executives, or in central budgeting or planning organizations that are part of the executive level of municipal government.

Initial planning of post-orientation monitoring and evaluation was based on the formal agreements between MIT and the NLC/USCM. Criteria had been specified and measures operationally defined to facilitate a resonably objective, systematic assessment of the orientation's impact on the effectiveness and performance of Project participants in certain professional roles in urban government. However, the January 31, 1972 "cut-off"* date for evaluation arrived, placements in urban government jobs, in both number and type were such that interpretation of the statistical analysis of monitoring data would be impaired. To the degree that such an interpretation is impaired, any claims made on that basis that the Aerospace Employment Program represented a "demonstration" of wide applicability would be unwarranted.

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*This choice of "cut-off," the point at which a uniform survey instrutment was mailed to a 100% sample of ADAPT participants, was a compromise between two conflicting objectives. On the one hand, NLC/USCM and MIT attempted to defer evaluation to permit a sufficient period of adjustment of the employed participants to their new task. (in order not to prejudice an assessment.) This of course, conflicted with the need for the NLC/USMC to prepare and distribute a timely report on the AEP.

Anticipating the need to reconsider evaluation strategy, the NLC/USCM convened a 2-day work session in mid-January 1972, which included representatives from the two participating universities and the two federal agencies (HUD and Labor) that were underwriting the costs of the AEP. At this meeting, MIT reiterated several suggestions originally advanced in the earlier report*; briefly: (1) that a shift be made toward a more subjective, case-oriented data collection procedure for monitoring the experience of successfully placed alumni; (2) that the idea of "technology adaptation" be revised to include unanticipated side effects of the orientation program; and (3) that the sample population be expanded to include those ADAPT alumni who secured public service employment on their own initiatives, returned to private sector employment, became self-employed or remain unemployed. It was agreed that the resulting data analysis would be rendered less conventional and that the final report would therefore be more tentative, particularistic and eclectic than was originally envisioned. Fewer generalizations could be made from the data, but the sense of detail would be heightened in the form of "vignettes" or cases illustrating the successes as well as the disappointments encountered by the AEP participants. Federal officials pointed out the effectiveness of this form of reporting to Congress, the imapct of real-life cases being greater than that of dry abstractions.

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*Project ADAPT: Report #1, Chapter VI, pp.68-79.

The Post Orientation Evaluation Plan

The January meeting confirmed that planning for post-orientation monitoring and evaluation be guided by three main questions:

1) How effective is a brief academic orientation as a means of transferring technical skills and management abilities from aerospace employment to local government employment?

2) What has been the experience of Model Cities and other employers in obtaining effective performance from ADAPT participants, and how does this performance lead to Model Cities' capacity building objectives?

3) What types of aerospace personnel perform most effectively in public service jobs associated with management of municipal government (e.g., administration, evaluation, information systems, and other activities enumerated in Model Cities legislation)?

Key terms om each of the questions were defined operationally to increase the objectivity and precision of responses obtained through monitoring and evaluation. "Effectiveness" of the orientation, for example, was defined as (a) improved employee vocabulary, (b) sensitivity to urban issues, and (c) familiarity with successful urban problem solving approaches. "Capacity building" was defined as continued employment in middle management positions affecting decision-making processes at the policy level of local government, and qualification for permanent civil service positions. Aerospace "types" were defined in terms of age, experience, training, non work-related civic and professional activities, and so forth.

Early results of the Concurrent Evaluation revealed that dimensions other than the purely intellectual had undergone change during the 20-day orientation. Attitudes toward professional commitment and toward social and civic responsibility were also shown to have developed; more mundanely, the participants also appeared to be re-evaluating the aims and means of job search. This prompted a widening of the evaluation inquiry to capture these changes. The model in Figure 2 identifies the orientation effects, anticipated behaviors and end states of the persons who completed the program. The chart symbols identify the effects and activities to be measured by the ADAPT survey instruments (both self-administered mailed questionnaires and on-site interviews by ADAPT research staff) and by data from NLC/USMC and from other current studies of unemployed professionals.

Findings of current studies of unemployed professionals are included in this evaluation to provide a perspective for assessing the results of ADAPT. Merely comparing before-and-after situations of ADAPT participants might not present the most accurate picture since, as manpower evaluation experts have shown, simple comparisons of this type often "overstate the effectiveness of manpower programs."*

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*Michael E. Borus and Charles G. Buntz, "Problems and Issues in the Evaluation of Manpower Programs," Industrial and Labor Relations Review, Vol. XXV. No. 2, (January, 1972), pp. 234-245.

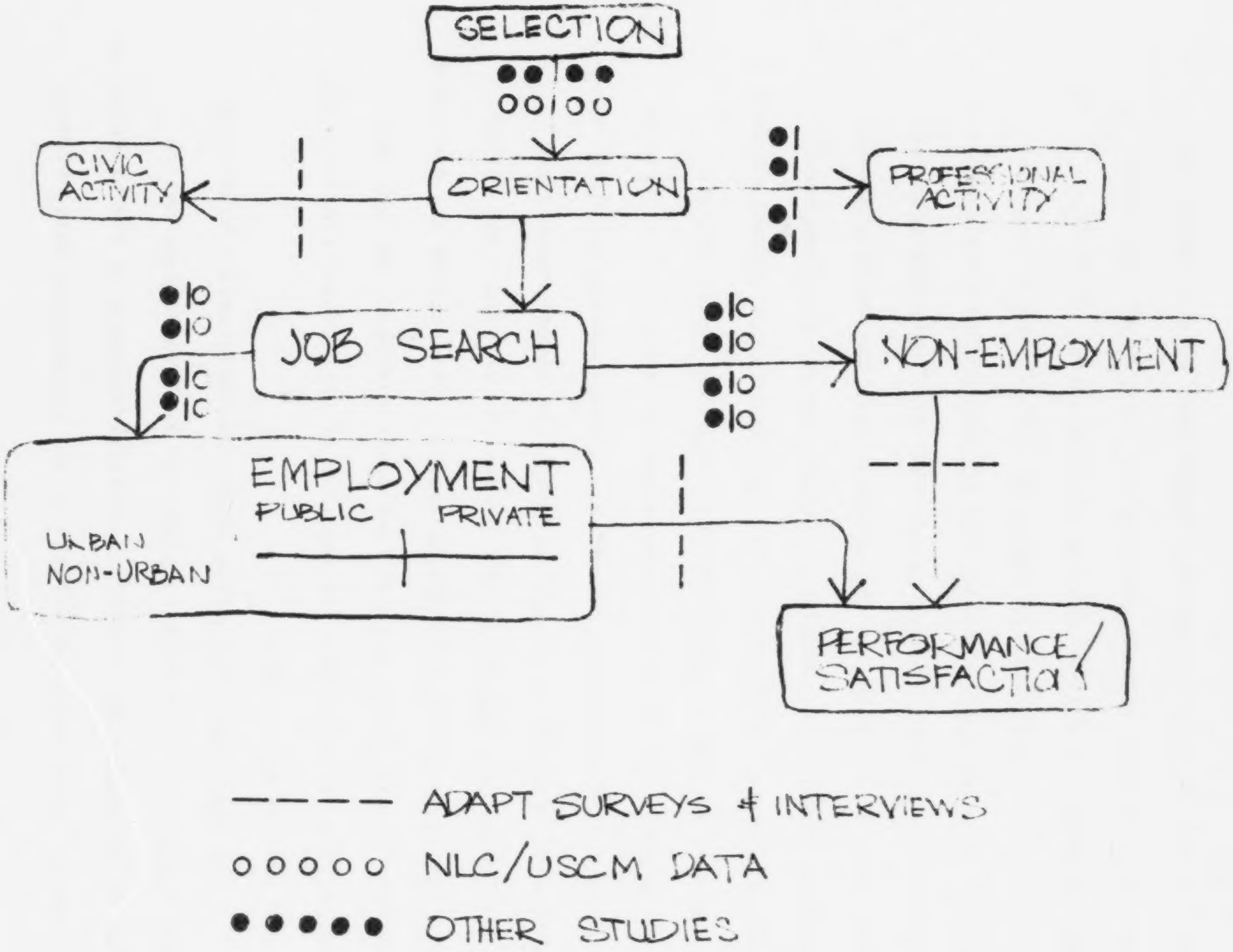
SELECTION
ORIENTATION
CIVIC ACTIVITY
PROFESSIONAL ACTIVITY
JOB SEARCH
NON-EMPLOYMENT
EMPLOYMENT
PUBLIC
PRIVATE
URBAN
NON-URBAN
PERFORMANCE/SATISFACTION
---- ADAPT SURVEYS & INTERVIEWS
○○○○○ NLC/USCM DATA
●●●●● OTHER STUDIES

FIGURE 2: CONCEPTUAL MODEL OF ORIENTATION EFFECTS AND MONITORING STRATEGY

This occurs because changes that would have occured among the participants even without the manpower program are not taken into account. To prevent this in the evaluation of ADAPT, MIT requested that NLC/USCM assist in identifying a "control group" of unemployed aerospace and defense professionals--persons similar to the participants except that they were not selected for nor did they complete the orientation. The early placement pattern, however, rendered this formal control group approach unfeasible* and in its place, MIT resorted to two current studies of groups similar to that from which the ADAPT participants were drawn. The first study documents the careers of a national sample of 2500 aerospace and defense professionals, one fifth of whom were laid off in recent cutbacks; the second reports the experiences of a sample of 1500 unemployed aerospace and defense professionals in the Los Angeles region. The studies are described in some detail in the Appendix and their findings, as they bear on ADAPT's own findings, are reported at appropriate places in the main body of this report.

The Concurrent Evaluation aided Post-Orientation Monitoring and Evaluation by collecting necessary background information and by assessing the initial impact-effectiveness of the orientation program. More permanent effects of the orientation were measured during post-orientation monitoring. To do this, two survey instruments were developed to collect data but mainly on the month-long orientation and its effects but also on job performance and employer-employee satisfaction: (1) a mailed polling of the entire enrollment, and (2) on-site interviews with selected employed and unemployed participants. In early February, 24 weeks after the participants left MIT, a self-administered survey instrument was mailed to all persons who participated in ADAPT. Analysis began with useable returns from 53% of the total enrollment. Using standardized measures, objective instruments, statistical sampling techniques, and rigorous analytical procedure, the Post-Orientation Evaluation yields a set of systematic and objective responses to questions posed at the outset of Project ADAPT. A discussion of methodological issues that arose during the work and their consequences for policy analysis are described in the Appendix to this report (Exhibit 1).

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*The relation of employment pattern and other factors affecting selection of control groups are described in the Interim Report, pp. 72-73.

The addition of a more case-oriented, subjective approach to data collection is an attempt to compensate for anticipated problems in statistical analysis arising from the small number of mailed survey cases, as discussed in the Intern Report (see above). Greater effort was devoted to on-site data collection. Field interviewers, who were instructed in interview methods (outlined in Appendix Exhibit B.2.a.), were able to explore the less concrete topics of "conversion," "performance," and "satisfaction" in greater depth than would have been possible with self-administered questionnaires alone. ADAPT researchers were able to interview many local actors at great length. Rich experiential and "process" data was gathered with this approach, despite the fact that strict comparability between and among cases is difficult to maintain.

The shift to a more case-oriented approach did not eliminate the use of standardized research instruments of objective measures. On the contrary, it enriched the interpretation of the statistical analyses. Moreover such interpretative data--although less uniform--may displace the lack of generalizable results with more pertinent, insightful observations that could benefit designers of future programs. These observations are summarized on the concluding section of this report.

MIT and NLC/USCM jointly determined that, given the number of interview opportunities available in the time alloted, on-site interviews would be limited to program participants at work in the public service. This decision reflects the dominant concern of the AEP--adaptation to new public careers rather than resumption of careers in private industry. The mailed questionnaire-as will later be shown-provided information on the subsequent "urban-related" private sector employment of the ADAPTers.

The Evaluation in Progress

In February and March 1972 (25 to 30 weeks after the participants left MIT), five members of the ADAPT staff conducted interviews with 32 ADAPT participants employed in state, regional and local public agencies in 22 locations in 9 states and the District of Columbia. In most cases, separate interviews were held with the ADAPTers' supervisors and, where possible, with co-workers. The generosity and courtesy extended to the interviewers was helpful and may be taken as a sign of the esteem in which the AEP was held. Early groundwork by NLC/USCM staff in Washington "opened doors" the country over for the evaluation team. (See the Appendix, Exhibit B.2.a. and b.)

The interviews were one or two hours long and followed a standard protocol. (Appendix Exhibit B.2.d.) In most cases, they took place at the office or work-station of the person interviewed. Written reports (on file at MIT) were prepared in a standard format (Appendix Exhibit B.2.C.). In the course of the interview, unobtrusive measures of organization life and professional activity were recorded: modes of inter-office and interpersonal communication, the work environment, etc. Issues of organizational environment, the organizational role of the ADAPTer, his sense of satisfactory performance, and his personal experience of adapting aerospace and defense skills to public service agency needs were the substance of the interview. Meetings with supervisors covered the same topics. Field interviewers maintained phone contact with MIT and the few problems that arose--mainly logistical--were handled with dispatch.

The ADAPT staff attempted to interview at least one still-unemployed program participant identified by the NLC/USCM at each of the "high impact" areas, in order to supplement the findings of the mail survey (the same reason for interviewing the ADAPTers employed in the public service). Here, the results were not satisfactory. In most cases, neither phone calls nor letters found a response. Apparently, the unemployed ADAPTers did not wish to communicate with the Project staff. Many of the employed ADAPTers volunteered the observation that their former aerospace and defense associates--ADAPTers or not--had,after several months of unemployment, "dropped out" in just this manner. This behavior is an indication of the stress that unemployment brings.

While field interviews were in progress, the ADAPT staff at MIT examined, coded and prepared for computer analysis the useable returns from the mail survey. Frequent contact with NLC/USCM staff resulted in useful suggestions for statistical analysis and for site interview variations as well.

III. FROM PROGRAM GOALS TO EVALUATIVE CRITERIA

Introduction

The formal objectives of the Aerospace Employment Project (AEP) have been summarized as follows:*

--Determine whether professional manpower needs of state and local governments can be met effectively in part by employing displaced Aerospace and Defense Scientists and Engineers.

--Determine whether a brief orientation and/or financial assistance for on-the-job development is necessary and adequate to aid in the transfer of such unemployed personnel to state and local government employment.

--Determine whether a central organization of representatives of state and local governments can develop an effective inter-area network in cooperation with state employment service agencies and professional associations for the selection, development and placement of special staff to fill primarily the model city capacity building needs of state and local government.

--Determine whether professional skills available from unemployed Aerospace and Defense Engineers and Scientists can assist state and local governments in the development and utilization of new technology in the solution of regional, state, and local problems related to Model Cities' capacity building needs and objectives including government operation and management.

The formal objectives of a project usually provide the central focus of an effort to assess its effectiveness. In the case of the AEP, the main burden for making the above determinations must fall on the NLC/USCM. The NLC/USCM assumed responsibility for over-all coordination of the AEP and for implementation of several major components thereof. Therefore the NLC/USCM staff assigned to the AEP have access to much of the data needed for comprehensive assessment. Their direct experience with job development activities, for example, places them in a better position to make specific comments on "...whether a central organization of representatives of state and local governments can develop an effective network..." MIT's Project ADAPT staff was asked to assess the impact of their August orientation on ADAPT participants and to monitor the post-orientation experience of those placed in public service positions. Thus MIT can speak more authoritatively on those aspects of the AEP. But the task of finally incorporating MIT's research findings into an overall assessment rests with the NLC/USCM.

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* Objectives as specified in contract between NLC/USCM and U.S. Departments of Labor and Housing and Urban Development.

Under these circumstances, the Project ADAPT staff felt obliged to present their feelings in ways that would facilitate their use in the NLC/USCM's report to the two sponsoring federal agencies. To that end, it would seem useful to explain the analytical perspectives undergirding the research, before actually presenting the data. Then, as the data are presented, a detailed discussion of their limitations and possible interpretations seems appropriate. Finally, it might be helpful to review the findings, attempting to integrate them around what appear to be key issues, and draw out their implications where appropriate.

A Framework for Analysis

The Aerospace Employment Project has already been described in this report in terms of various activities: recruitment, job development, orientation, job placement, and monitoring. The Project ADAPT staff found it convenient and useful to think of these activities as distinct, functional components of a temporary enterprise/system organized around specific objectives.

1. ACTIVITIES AS COMPONENTS. First, the staff could consider the effectiveness of each component separately. The possibility of the AEP falling short of its overall objectives need not imply that all components of the Project were ineffective. Conversely, the possibility of the AEP accomplishing its goals need not suggest that all components performed their functions as effectively as might be assumed from the overall success of the project.

A second advantage of maintaining the distinction was that it was easier to explore the indirect or unanticipated effects of each group of activities, in addition to the direct, intended effects. For example, the formal objectives of the summer orientation related to participants' understanding of urban issues, familiarity with a technical vocabulary, and so forth. But exploratory conversations with a few ADAPT participants revealed that the program might have had some unexpected effects. Prominent among them was an increased involvement in municipal affairs... regardless of employment status.

Of course this component breakdown corresponds with the organizational division of labor for AEP. And organizational auspices for certain activities appeared, in itself, to contribute to indirect effects. Several ADAPTers indicated, for example, that certification from nationally recognized educational institutions such as MIT and Berkeley gave a boost to their job search activities. A few insisted that such certification would have been useful, independent of the content of the training received. Similarly, the credibility of the NLC/USCM with municipal officials likely influenced the effectiveness of the job development effort.

Finally, thinking of the separate activities as individual components made easier the task of identifying contributions of each component to the effectiveness of other components and to the objectives of the project as a whole. The orientation component, for instance, might have had some unanticipated effects on the job placement component. As will be shown, the orientation did have the effect of "turning on" participants to public service careers in municipal agencies. This was expected. But it is not conceivable that the orientation had the opposite effect as well. The orientation above all was designed to realistically and honestly portray the plethora of urban problems. Such a portrayal would challenge some participants; but it also might discourage and demoralize others. Indeed, in a few cases, there appears to have been some reluctance on the part of ADAPTers to follow through on scheduled appointments or to actively seek employment opportunities in public agencies.* The NLC/USCM staff may wish to incorporate into their final report data on this question, based on their direct experience with job development and placement activities.

Similarly, activities undertaken as part of the job development component affected orientation activities. As reported in the MIT interim report, several participants became increasingly preoccupied over the uncertainty about the availability of specific job opportunities. This situation might have been unavoidable. However, the uncertainty contributed to increasing distracted behavior and, on occasion, disruptive outbursts by a few participants. The situation impressed a noted social psychologist who ran a one-day session during the last week on August. He suggested that the problem of uncertainty be anticipated in the future so as to permit maximum attention to the content of the orientation program. This could be accomplished by connecting participants to jobs earlier in the program or by modifying the orientation to assist participants in handling the anxieties produced by uncertainty about employment. Thus, keeping components distinct also served to illuminate alternative approaches to anticipating recurrent problems.

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* This withdrawal from interest in public service must be distinguished from the less frequently encountered, almost pathological, cases of persons "dropping out" from professional and even personal communications. This depressed behavior has been associated with long periods of unemployment and is by no means unique to displaced Aerpsoace and Defense professionals.

2. AEP AS A TEMPORARY SYSTEM.* Project ADAPT staff also found it useful to keep in mind that the AEP is a temporary enterprise-system. The NLC/USCM-HUD-Labor contract refers to the general purpose of AEP as:

> ...to conduct a pilot program [emphasis added] of selection, orientation, and placement of former Aerospace and Defense Engineers and Scientists...

Thus the AEP is a pilot or demonstaation project with the specific objective of making certain determinations. In this regard it is unlike continuing manpower programs. Consequently, the major focus of the assessment should be different. Assessments of routine programs may be focused on the formal objectives of the programs. But such assessments frequently compare the efficiency or effectiveness of a program to programs with similar objectives. Once evaluation findings pertaining to a continuing program are made available to the program's administrators, they can be incorporated into decisions about modifying, expanding, or reducing continuing program efforts.

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*"Temporary" in the sense that an organization was created for one specific purpose and is usually designed to be dismantled once its task has been achieved.

The AEP was convened, however, as a demonstration. It was not established as a permanent program. Thus questions of a different sort must be raised in assessing the AEP:

- --Should the pilot-demonstration be repeated? If so, what changes should be made in its objectives, design and structure?
- --Should a larger program, patterned after the AEP, be instituted on an on-going basis?
- --Can the demonstrated achievements of the AEP be documented and disseminated in such a way as to obviate the need for either a second, modified demonstration or an enlarged, on-going program?
- --Can the experience accumulated in one or more component activities of the AEP be used to improve the operations of existing similar programs? Can it be used to improve planning for projects and programs envisioned in the future?

This list of questions is clearly not exhaustive, but it is helpful for perceiving differences between assessing the AEP and assessing continuing programs. Notably absent from the list, for example, are questions of the "cost-effectiveness" variety. There are several reasons for the omission, a major reason being that efficiency, per se, was not the primary objective of the AEP. The basic aim was to determine whether several things could be done at all and, if so, how effectively. Another reason is that the AEP is unique, virtually without precedent. Cost-effectiveness studies frequently compare alternative approaches to achieving a common set of goals. However, the only real standard against which the efficiency of the AEP can be measured is the normal, relatively unregulated operations of the professional labor market. (Problems associated with making this comparison will be discussed later in this report.) But the most compelling reason for special handling of the AEP evaluation derives from the fact that the AEP is a "one-shot" project. Cost-effectiveness data would be relatively meaningless to program officials, unless a decision were reached to repeat the project. In such an instance, the AEP would become a tentative standard against which the results of subsequent outcomes could be measured.

The abbreviated life span of the AEP did more than shape Project ADAPT staff's thinking about appropriate questions. The concept of the AEP as a temporary system also alerted the staff to certain problems in collecting, analyzing and interpreting data about the effectiveness of the AEP. Most of these problems are discussed in the section entitled "Project Evaluation Plans," and in considerable detail in MIT's interim report to the NLC/USCM.* But other major problems issuing from the temporary existence of the AEP deserve attention.

First, the total time nominally available for monitoring the on-the-job experience of ADAPT participants was only seven or eight months (from September to mid-March to the end of May). Moreover, since most placements occurred in 1972, the period of time actually available for monitoring was reduced to three or four months. It is also important to keep in mind that most of the data were collected at a time when many, if not most, ADAPT participants were experiencing what might be called an initial adjustment phase of their entry into both a new job and a new career. Consequently, inferences based on this monitoring data--however encouraging or disappointing the data may seem to be--must be made carefully and tentatively. Any interpretation or generalization drawn from these data which is unaccompanied by a reservation based on the circumstances surrounding data collection, must be regarded as tenuous, if not suspect.*

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* See Project ADAPT (Report #1) Review and Assessment of Post-Orientation Careers of Project Participants, pp.68-79.

The second major limiting consequence of the temporary existence of the AEP follows from the first, but concerns measurement of the continued impact of the Project. For example, the AEP's contribution to HUD/Model Cities' capacity building objectives may be understated and/or ambiguous in this report because of the short amount of time available for observation and data collection. The real contribution of the AEP to those objectives may not be measurable for some time yet. To this date, however, no provision has been made for monitoring further developments.

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* A recent manual on manpower program evaluation advises that "Measurements of program impact should occur no sooner than one year after the end of the program for the sample of participants. To examine any shorter period would raise problems of seasonality and put too great an emphasis on factors connected with the program which have only short-run effects. Evaluations should also be made at three or five year intervals after the program participants have terminated. See Borus and Tash, Measuring the Impact of Manpower Programs: A Primer (Ann Arbor, Michigan: Institute of Labor and Industrial Relations, University of Michigan-Wayne State University, 1970), pp.32-33.

Similarly, the scheduled--perhaps premature--abandonment of monitoring activities may impair the full realization and accurate assessment of AEP job development efforts. Although job development efforts of the NLC/USCM will probably continue until the AEP is terminated, placements might not actually occur until after the AEP's final report has been submitted. Moreover, public agencies may decide, on the basis of their experience with one ADAPT participant, to add other participants to their staffs. But if such a decision is made after the AEP has terminated, this central organization would no longer be available to them. It is also possible that ADAPT participants successfully placed in the public service might persuade unemployed colleagues from the aerospace/defense industry to accept offers from state and local public agencies. Again, this might happen after AEP monitoring has ended.

Thus, impact measures of job development and placement efforts may be misleading because of the relatively short duration of the AEP. It should not be presumed, however, that only successful outcomes will be understated as a result; less positive outcomes might also be undetected. After a few months' work in a public agency, an ADAPTer might receive an attractive job offer from a private firm and return to the aerospace/defense industry. This has already occurred in a few cases. The problem may be particularly critical in cases where ADAPT participants secured public service employment under provisions of the Emergency Employment Act of 1971 (EEA). The assumption of Project participants that in most cases EEA jobs would lead to permanent positions in public agencies may have been a faulty assumption. The ostensible security of EEA-supported public employment may mask precarious job situations. Agency officials may decide not to recommend permanent employment for individuals in EEA positions, or their budgets may not accomodate EEA employees, once EEA funds are exhausted. ADAPT participants now reported that they are skeptical about their chances of parleying an EEA job into a "hard" position in a public agency.*

Whether the number of cases in which successfully-placed ADAPT participants leave the public sector after the AEP is terminated *approximates* the number of placements that occur after the project is over is, in itself, unimportant. The more important underlying issue is that there will be no opportunity to report those data and to assess their implications for the longer-term impact-effectiveness of the AEP.

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*ADAPTers are indeed skeptical of the longevity of EEA employment. One indicator of this skepticism is taken from a report of placements recently compiled by a self-help group of ADAPT participants. The placements are classified as follows:

Industry Employed----------------------
Public Sector (Permanent)--------------
Public Sector (EEA)--------------------
Private Sector (Non-profit)------------
Consulting and Part Time---------------
Unemployed-----------------------------

This group of ADAPTers does not consider EEA placements as permanent positions.

3. AEP AS A MULTI-DIMENSIONAL EFFORT. The formal objectives of the AEP can be seen from three perspectives:

--as a mechanism for contributing to HUD/Model Cities' capacity building objectives;

--as a vehicle for assisting displaced technical personnel from aerospace and defense in obtaining employment in the public sector; and

--as a means of facilitating the adaptation of skills and techniques from aerospace and defense to assist state and local governments in ameliorating urban problems.

The rationale for using three perspectives is straightforward: since the AEP's efforts might produce greater success on one group of objectives--or "dimension"--than on another, it is important that each dimension be evaluated separately, if the effectiveness of the AEP is to be considered fairly. For example, the AEP might succeed in helping participants find work in the public sector, yet fail to place most participants in positions that bear on capacity building. Participants might find themselves in capacity building roles, yet find it difficult to adapt skills and experience from aerospace to the tasks at hand. Or it might be determined that those participants placed in capacity building roles were able to adapt skills and techniques from their experience in private industry. This reports' finding that fewer participants than expected actually found suitable employment should not unduly prejudice the overall assessment of the AEP. Thus the Project ADAPT staff determined to treat these dimensions separately.

Accordingly, data collected during the monitoring phase of Project ADAPT are organized around the three perspectives identified above. The data can be used to assist in assessing the AEP as an employment mechanism, a vehicle for contributing to capacity building objectives, and as a means for facilitating adaptation of skills and techniques. Different evaluative criteria are appropriate in each case. These criteria are discussed in some detail in respective sections, but some prior discussion might be useful.

4. AEP CONTRIBUTIONS TO CAPACITY BUILDING OBJECTIVES. "Capacity building objectives" has been defined by HUD/Model Cities officials in terms of certain organizational roles in selected state and local agencies. The roles identified are associated with improvement in management capacity and agency operations; the agencies identified are located in cities designated to receive Model Cities funds.

Therefore, in general terms, assessment of the AEP's contribution to capacity building objectives should focus on the portion of participants the AEP placed in the identified roles and agencies, and on its contribution to their ability to perform effectively, once placed in those roles. The section of this report entitled "Capacity Building Objectives" is organized around this approach to assessing the AEP. After a summary of placement results bearing on capacity building objectives, a detailed analysis of the impact of the ADAPT orientation component on participants knowledge, attitudes, and expectations is presented. Then available data concerning on-the-job performance are presented and discussed. Performance is treated as situation-specific to account for differences in employers' expectations from case to case. Guidelines for interpretation are introduced as data are examined.

5. AEP CONTRIBUTIONS TO ADAPTATION OF SKILLS AND TECHNIQUES. A fundamental assumption underlying the creation of the AEP was that certain skills and techniques developed in the aerospace/defense industry could be adapted to efforts to resolve pressing urban problems. Therefore one central task of assessment is that of testing this basic assumption.

This task can be distinguished from the task of assessing the AEP's contribution to capacity building objectives. A main issue in the capacity building section is whether ADAPT participants perform up to expectations once they secure employment. The issue here is whether successfully placed participants find skills developed in private industry--particularly the aerospace industry--useful in solving the problems confronting them. Also, what are those "useful" skills, and are there similarities in employment situations that more readily permit adaptation? What problems of urban-related agencies appear most amenable to solutions that employ skills adapted from aerospace and defense?

Assessment of AEP's contribution to capacity building objectives is restricted to the work experience of those who secured employment in certain agencies and certain roles. An analysis of problems of adaptation need not be so restricted. The experience of all ADAPT participants who found work in organizations whose activities bear on urban problems is relevant to adaptation issues. This may include some ADAPT participants who secured jobs in public agencies not listed by HUD/Model Cities as a "target" agency, or it may include modes of adaptation other than public service employment, *per se*.

Thus the chapter of this report entitled "Adaptation of Aerospace Skills and Experience to Urban Problems and Government Needs" is organized around three major modes of adaptation: (1) adaptation through direct employment, (2) adaptation through private contracting agencies, and (3) adaptation through non-work-related activities. Since the experience of most participants has been with the first mode of adaptation, that section of the chapter is more detailed and complete. A series of vignettes illustrate a subsequent discussion of the relationships of the type of tasks assigned, the work environment, and the attitude of the new employee to problems of adaptation.

A few examples of adaptation through both newly-created and through older, established private contracting agencies comprise the second section of the chapter on adaptation. The third section deals with adaptation through non-work-related activities. It includes the experience of ADAPT participants employed in the public sector, those who re-entered the work force in the private sector, and those who were still unemployed at the time data were collected.

The entire chapter on adaptation is less systematic than suggestive. The questions raised there deserve further examination.

6. AEP CONTRIBUTIONS TO EMPLOYMENT OBJECTIVES. The major section of this report entitled "Employment Objectives" addresses the more strictly employment-related goals of the AEP. While the AEP was created primarily to serve Model Cities' capacity building objectives, it had as a second major goal the securing of state and local government employment for unemployed professionals from the hard-hit aerospace and defense industries. The question dominating this portion of the assessment of the AEP is whether the project facilitated the flow of surplus professional manpower into job opportunities available in the agencies of state and local government.

For this purpose, the AEP is treated as a special-purpose mechanism for organizing labor market information. Its effectiveness in overcoming certain barriers to the flow of a cadre of "surplussed" manpower from aerospace and defense into jobs in the public sector is discussed. Problems of comparison to other labor market information systems are identified as the discussion proceeds.

IV. CAPACITY BUILDING OBJECTIVES

The HUD/Model Cities' "capacity building" objectives bear on the staff capabilities of City Demonstration Agencies (CDA's) and other public agencies which serve residents of cities designated to receive special federal financial and technical assistance under the Demonstration Cities and Metropolitan Development Act of 1966. Model Cities Administration officials have urged local agencies to augment their staffs with high calibre professionals, particularly in the areas of general administration, program management, evaluation, management information systems and related scientific disciplines. The likelihood that the proposed Aerospace Employment Project would contribute to HUD's capacity building objectives provided a primary justification for the creation of the project. The AEP could contribute in several ways:

-- screen thousands of surplus managerial and technical personnel from the aerospace and defense industries to identify those most qualified to fill capacity building roles in the public agencies of cities designated for Federal assistance under the Demonstration Cities Act;

-- provide the select group of surplus personnel with: (1) familiarity with the working vocabulary of those engaged in municipal government; (2) increased sensitivity to the problems and issues embedded in the conduct of urban affairs; and (3) awareness of several successful approaches to problem solving in an urban context;

-- generate among members of that group an interest in and commitment to public service careers in urban-oriented organizations and agencies;

- create a willingness to use surplus technical and managerial personnel from aerospace and defense in municipal-level public agencies;
- identify and develop employment opportunities in capacity building roles for AEP participants;
- assist municipal agencies in selecting appropriate candidates for specific unemployment opportunities from among the roster of AEP participants; and
- arrange job interviews and provide support for on-the-job training to facilitate effective matching of specific agency manpower needs to the particular skills and experience of AEP participants.

Measuring the extent of the AEP contribution, however, promises to be problematic in several ways.

Measuring AEP's Contrubition

Two obvious measures of AEP's contribution to HUD/Model Cities' capacity building objectives readily present themselves: (1) the percentage of those selected and trained through AEP who actually obtained employment in capacity building roles in public agencies, and (2) the proportion of those successfully placed who perform effectively, once on the job. As evaluative measures they are at once essential, misleading, and inadequate.

1. PERCENTAGE PLACEMENT. The percentage placement measure is essential in that it provides a relatively unambiguous description of a major outcome of the AEP effort. As of March 31, 1972, the NLC/USCM reported that 42% of all public sector placements of ADAPT participants were employed in Model Cities agencies, municipal government agencies of cities designated to receive federal financial and technical assistance under the Demonstration Cities Act, or

public service agencies located within a model city. Placement figures are summarized in Table A below.

TABLE A: ADAPT PARTICIPANTS PLACED IN AGENCIES IDENTIFIED BY NLC/USCM TARGETS FOR CAPACITY BUILDING, AS OF MARCH 31, 1972

Type Of Agency	Number Of ADAPT Participants Placed In Target Public Agencies	As A Percent Of Total Public Service Placements (N=60)	As A Percent Of Total ADAPT Enrollment (N=185)
Model City Agency (CDA)	4	7%	2%
Municipal Government In a Model City	12	20%	6%
Other Public Agencies In A Model City	8	15%	5%
TOTALS	24	42%	13%

One source of the measure's ambiguity is the difficulty of categorizing public service positions in organizations other than CDA's or official agencies of municipal government. One ADAPT participant, for example, obtained a job in a federal agency whose offices are located in a model city. His work includes monitoring hardware procurement contracts for civilian air transportation control equipment. That position is included in the inventory of positions bearing on HUD/Model Cities capacity building objectives. Still another federal civil service placement appears in this category. This ADAPTer is a customs inspector in a major port that has been designated a model city.

The list also includes positions in public service-oriented, private or quasi-private organizations. One ADAPT placement has been charged with the responsibility of managing pollution control programs initiated by a not-for-profit association concerned with public health problems in a major metropolitan area. Curiously, at least one placement of this type was not included in the list of placements that bear on capacity building objectives. An ADAPT participant received a position as service unit coordinator of an eleemosynary hospital, a major portion of whose clientele reside within the boundaries of a model neighborhood in a major city. Several instances similar to the latter may compensate for the seemingly arbitrary inclusion of certain public service placements such as those mentioned in the previous paragraph. In fact, MIT's Project ADAPT staff discovered among those who responded to the February survey questionnaire several participants in public service employment who had not yet reported their new employment status to NLC/USCM's AEP staff. Moreover, from the sample of those who re-entered private sector employment (21 of the 98 survey respondents), 22% indicated that their new jobs related in part to one or more of the urban problems addressed during the summer orientation. One respondent (self-employed), for example, indicated that his company performs economic development, urban management systems and manpower planning studies for various municipal agencies. Another reported that his private sector job requires that he work with government agencies to cut through "red tape" in developing jobs for the disadvantaged. Thus, instances of omission of potentially relevant private sector positions approximately compensate for apparently arbitrary inclusions of public sector jobs that appear to have little bearing on HUD/Model Cities' capacity building objectives.

The measure, therefore, is not only essential, but also reasonably accurate. It is, however, inadequate to the task of measuring AEP's contribution to HUD/Model Cities' capacity building objectives. The AEP could not require municipal agencies in model cities to hire AEP enrollees; nor could it compel AEP enrollees to accept positions identified through its job development activities. Thus, exclusive reliance on the placement percentage measure could obscure relevant contributions. They include:

-- agencies located in model cities pursuaded of the desirability of hiring AEP enrollees who for one reason or another found it difficult to acquire their services; and*

-- AEP enrollees interested in shifting to public service careers in model cities who for one reason or another found it difficult to obtain employment in model city agencies.

Since the AEP staff at the NLC/USCM assumed responsibility for generating interest in the relevance of skills and experience of ADAPT participants among model city agencies of the eastern half of the United States, they are more familiar with the problems encountered in the job development effort and more facile with the data that would measure the AEP's contributions in that arena. The data on job development available to the staff of Project ADAPT are accordingly quite limited. Data from MIT surveys of ADAPT enrollees, however, illuminate the contribution of the summer orientation to HUD/Model Cities' capacity building objectives. In more limited ways, it sheds light on problems associated with NLC/USCM job development efforts and, indirectly, on otherwise hidden AEP contributions to capacity building objectives.

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*CDAs, themselves, are required by HUD to give preference to model neighborhood residents in their hiring.

The contributions of Project ADAPT otherwise hidden by the placement percentage measure are the effects of the summer orientation on ADAPT participants' knowledge and expectations, their willingness to enter public service employment at the municipal level, and their individual job search activities subsequent to the orientation.

2. CHANGES IN KNOWLEDGE, ATTITUDES AND EXPECTATIONS. Changes in ADAPT participants' familiarity with the working vocabulary of those engaged in municipal affairs were measured by a simple vocabulary test administered on three occasions: (1) just prior to the orientation program, (2) immediately upon the completion of the orientation, and (3) six months subsequent to the orientation. As reported in the ADAPT Interim Report to NLC/USCM, ADAPT participants' understanding of the terminology of urban affairs (as sampled by the terms included in the brief exam) increased during the month-long orientation.

As Table B indicates, however, there was a deterioration in familiarity with that terminology in the six months following the orientation. Mean scores on accuracy of definitions of technical terms drops from 13.4 at the end of August to 11.2 in February. Inspection of the standard deviations associated with aggregated scores suggests that scores tended more to be alike at the end of August than either just prior to the orientation or six months after. Thus the argument could be made that the orientation tended to increase participants' familiarity with technical terms associated with urban affairs, and that the impact of the August session on participants was more general than specific...insofar as this measure of impact is concerned.

The fact that there appears to have been some net gain in familiarity should be interpreted cautiously. Respondents to the survey had an opportunity to search for "correct" answers before returning the questionnaire to MIT. The "sensitization" effect of having seen the terms on previous instruments just prior to and immediately following the orientation may also be present.

TABLE B: SAMPLE VOCABULARY SCORES OF ADAPT PARTICIPANTS PRIOR TO ORIENTATION (0_1), AT THE END OF ORIENTATION (0_2), AND SIX MONTHS SUBSEQUENT TO ORIENTATION (0_3)

SAMPLE STATISTICS	Pre-Orientation Exam (0_1)	Post-Orientation Exam (0_2)	Survey Sample Exam (0_3)
Mean Score	9.0	13.4	11.2
Standard deviation	4.8	3.8	6.9
Number responding	90	96	75

A series of new terms were added to the six months survey to determine the extent of sensitization. A comparison of scores on the newly introduced words,to the terms that had been used on previous occasions,strongly suggests that the sensitization effect was present. Mean scores on the common words was 11.2, but mean scores on the "control" terms was only 4.2. The fact that those employed in the public sector, those employed in the private sector, and those still unemployed had about the same mean score on this group of "control" terms only obfuscates interpretation of these data.

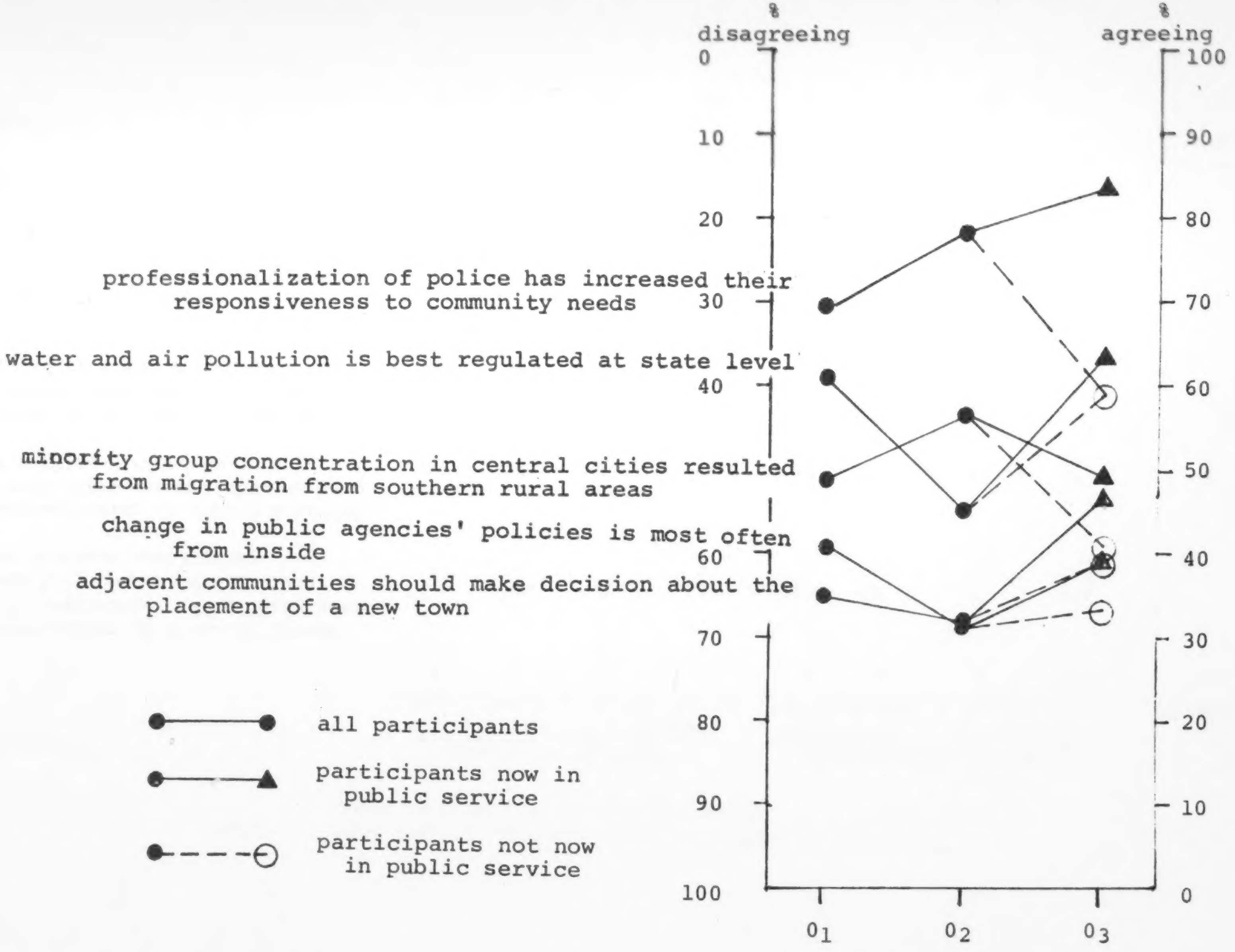
The orientation's impact on participants' familiarity with urban problems was measured by their responses to certain opinion-evoking questions. They were asked to agree or disagree with statements such as: "Change in public agencies is most often accomplished from inside;" "Minority group concentration in central cities is largely a result of steady migration from southern rural areas;" and "Professionalization of the police has increased their responsiveness to community needs."

Table C and Figure 3 summarize opinions on each of the questions taken before, immediately after, and six months subsequent to the summer orientation. Two observations can be made from the table. First, as measured by these opinion questions, the orientation appears to have had a slight effect on participants' perception of urban problems. Second, without exception, aggregate opinions tended to

TABLE C: PARTICIPANTS' OPINIONS ABOUT THE NATURE OF SELECTED URBAN PROBLEMS, BY TYPE OF EMPLOYMENT

OPINION ITEM:	AGREE WITH STATEMENT				DISAGREE WITH STATEMENT				TOTALS	
	Employed in Public Agency		Not Employed In Public Agency		Employed in Public Agency		Not employed In Public Agency			
	#	%	#	%	#	%	#	%		
1. Concentration of minority groups in central cities of Northern metro areas is a result of migration from Southern rural areas.	12	48%	29	41%	13	52	41	59%		
2. Changing policy in public agencies is most often accomplished by people working within the agency.	9	39	23	33	14	61	47	67		
3. Regulation of local air and water pollution emission is best accomplished by state government.	15	63	41	59	9	37	29	41		
4. Professionalization of the police has tended to increase their responsiveness to community needs.	20	83	39	59	39	17	30	41		
5. Placement of a "new town" should be mainly the decision of nearby communities.	11	46	27	39	27	54	41	61		
AVERAGES	13	56%	--	--	20	44%	--	--	23	100%
	--	--	32	46%	--	--	38	54	70	100%

FIGURE 3: OPINIONS ABOUT SELECTED URBAN PROBLEMS AT 0_1, 0_2 AND 0_3



revert to pre-orientation positions over the six months between the end of the orientation and the February survey.

However, the data are hard to interpret. First, the measure itself may be inadequate. The questions may not be sufficiently representative of the broad range of urban problems and issues discussed during the orientation. In the event the topics polled were representative, there is no assurance that the questions were formulated clearly enough to evoke unequivocal opinions. A respondent, for example, might agree that in theory air and water pollution are best regulated by the state, but contend that in practice, the effective capacity for regulation rests with other levels of government.* Or he might disagree with the statement because he believes water pollution should be regulated by the state, air pollution by the federal government. In either case, the question is sufficiently ambiguous to create some confusion for the respondent, and difficulty for the analyst. Second, the statistical treatment of the data may misguide interpretation. Figure 3 is based on percentages from two different samples. Percentage figures for O_1 (pre-orientation) and O_2 (post-orientation) include the opinions of almost all ADAPT participants; percentage figures for O_3 (six months after orientation) are based on the opinions of those who responded to the survey questionnaire. Issues around the representativeness of the survey sample are not sufficiently clear to warrant adjustment of the sample, or the elimination--for purposes of analysis--of opinions of those who responded at O_1 and O_2 but failed to respond at O_3. Thus, the O_3 sample must serve as a reasonable proxy for the entire ADAPT participant population.

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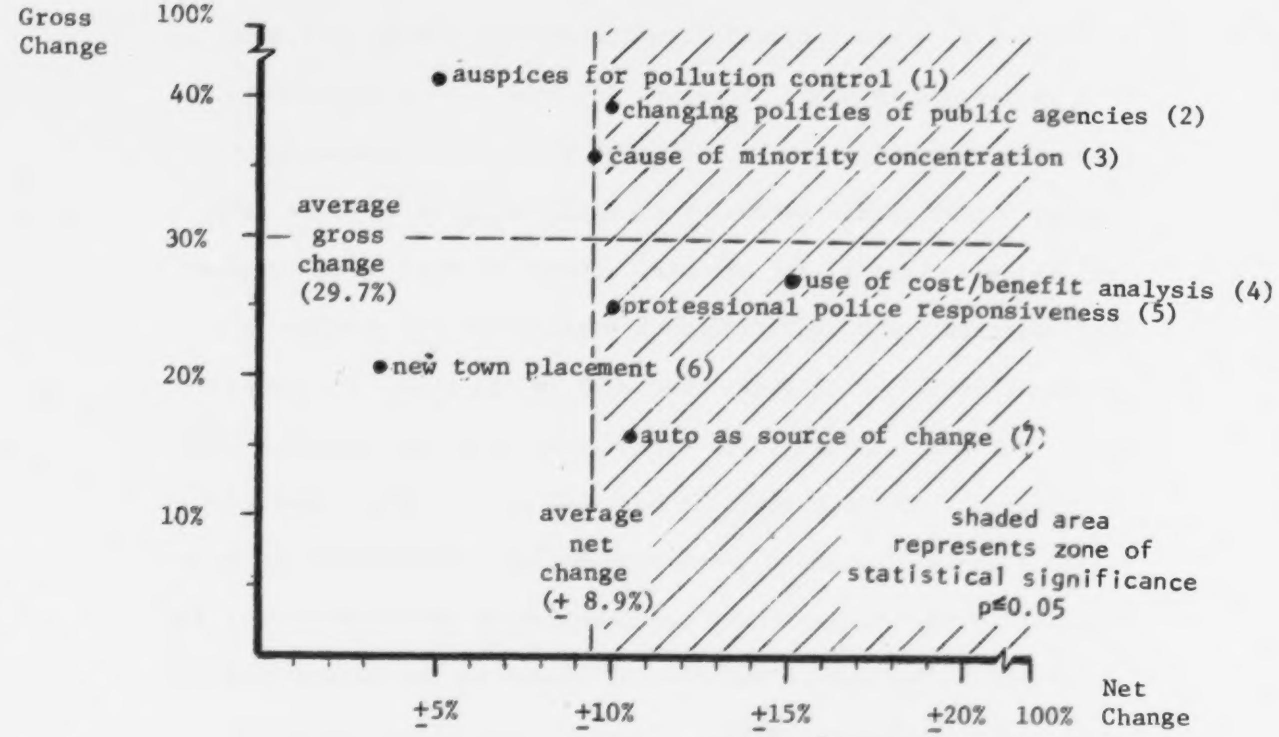
*One respondent did precisely that in a marginal note: "Do you mean in theory or practics? I would respond differently."

Further, the percentage figures in Figure 3 report only net changes in opinion categories. It does not report gross changes of opinion. For example, prior to the orientation, 60% of the respondents agreed with the statement: "Regulation of local air and water pollution emission is best accomplished by state government." Immediately after the orientation 55% of the respondents agreed to the same statement--not an apparently significant opinion change. Yet only 61% of those who agreed (66 out of 108) with the statement before the orientation failed to change their opinions. Forty-seven percent of those who disagreed at the outset had changed their opinions by the end of August. In short, approximately 42% of the ADAPT participants changed their opinions during the orientation, this despite the fact that the percentage "agreeing" with the statement on pollution control decreased by only 5% during the same period of time. This suggests that respondents were construing the question differently and/or no clear perspective on a "solution" emerged during the orientation.

The same problem arises--usually to a lesser degree--with other questions of this type. Net and gross changes of opinion on several questions are summarized in Figure 4. Impact of the orientation on responses to these questions must, of course, be interpreted in light of initial consensus (also included in Figure 4). But in general terms, when gross change in group opinion is

FIGURE 4: ADAPT PARTICIPANTS' OPINION CHANGE AND CONSENSUS EMERGENCE ON URBAN ISSUES DURING THE MIT ORIENTATION (N=180)



Opinion Item:	Percent Agreement		Opinion Changes	
	Pre-MIT	Post-MIT	Net	Gross
1. Regulation of local air and water pollution emission is best accomplished by state government.	60.3%	55.3%	-5%	41.9%
2. Changing policy in public agencies is most often accomplished by people working within the agency.	40.2%	30.2%	-10%	39.5%
3. Concentration of minority groups in central cities of Northern metro areas is a result of migration from Southern rural areas.	47.8%	56.7%	+8.9%	36.7%
4. Cost/benefit analysis helps municipal officials weigh conflicting goals of urban social groups.	87.6%	71.8%	+15.2%	27.1%
5. Professionalization of the police has tended to increase their responsiveness to community needs.	68.5%	78.5%	+10.0%	25.4%
6. Placement of a "new town" should be mainly the decision of nearby communities.	35.2%	31.8%	-3.4%	21.3%
7. The automobile, more than any 20th century invention, has shaped U.S. cities.	82.9%	93.4%	+10.5%	16.1%

reinforced by a statistically significant net change (a ± 9 to ± 10 percentage change), it can be inferred that a significant consensus of opinion began to develop during the orientation. Whether policy change is most frequently effected by those working inside an agency, for example, appears to have become a somewhat volatile issue resulting in a significant net decline in agreement among participants that such is the case. On the other hand, most participants (83%) were agreed from the beginning that the invention of the automobile has done more to shape American cities than any Twentieth Century invention. Relatively few participants (16%) changed their opinions during the orientation, and those who shifted made a substantial change in the strength of the consensus of agreement (93%). The most significant change of opinion occurred on the question of how cost/benefit analysis could be utilized by municipal officials. Over 25% revised their views during the orientation. In most cases, the change reflected a loss of confidence in cost/benefit analysis as a means of weighing conflicting goals of urban social groups. Whether the net change in agreement (-15%) reflected a refinement of understanding of cost/benefit analysis or a general disenchantment with its utility in decision making in an urban context is unclear. Nevertheless, over 70% of the respondents maintained in the end that cost/benefit analysis is useful for the purpose indicated. As measured by several questions designed to evoke opinions about urban issues, then, the perspectives of ADAPT respondents appear to have changed somewhat during the orientation. Taking into account that some of the opinion items lend themselves to ambiguous interpretation, responses to the questions before and after the orientation--taken as net and/or gross changes--seem to be a useful measure for describing the impact of the orientation.

A question administered to ADAPT participants along with the opinion questions discussed above promised to provide a combined measure of their sensitivity to urban issues and their familiarity with successful approaches to problem solving in an urban context. Each respondent was presented with a list of nine urban policy alternatives. He was asked to select from the list three policies that he believed would be most effective in alleviating urban problems. The results, taken prior to the orientation (0_1), at the end of the orientation (0_2), and six months after the orientation (0_3), appear in Table D below. A cursory review of the data and statistics suggests that subsequent to the orientation, ADAPT participants' preferences for policies to alleviate urban problems differed significantly from their preferences at the outset. At the end of the August session, preference ordering had shifted by 12 ranks [the maximum number of rank shifts available for 9 choices is only 35.] An application of the Chi Square statistic--which employs the distrubution of

TABLE D: URBAN POLICY PREFERENCES OF ADAPT PARTICIPANTS BEFORE ORIENTATION (0_1) AT THE END OF ORIENTATION (0_2), AND SIX MONTHS AFTER ORIENTATION (0_3)

Urban Policy Alternatives	0_1(N= 178)		0_2(N= 171)			0_3(N= 84)		
	Votes (517)	Rank 0_1	Votes (500)	Rank 0_2	Change 0_1-0_2	Votes (251)	Rank 0_3	Change 0_1-0_3
--Increase housing construction rate	5%	8	11%	5	+3	4%	8	-0-
--Encourage industrial, commercial development	5%	4	8%	6	-2	14%	5	-1
--Improve pre-school, elementary education	10%	5	11%	4	+1	15%	4	+1
--Reduce crime rate	7%	7	7%	7	-0-	7%	6	-1
--Encourage migration of low-income families to suburbs	3%	9	7%	8	+1	3%	9	-0-
--Regulate polluters	9%	6	4%	9	-3	6%	7	-1
--Create jobs for low-income families	13%	3	14%	3	-0-	19%	1	+2
--Give mayors more money and experts	19%	2	23%	1	+1	16%	3	-1
--Formulate natural urban strategy	22%	1	16%	2	-1	17%	2	-1
TOTALS	100%	---	101%	---	| 12 |*	101%	---	| 8 |*

* Absolute number of rank changes

of pre-orientation preferences as a theoretical distribution--yields a statistically significant change in the preference distribution itself.

Interpretation of the results from the preference measure is also problematic. Note, for example, the top three preferences at O_1; then at O_2 and O_3. The preferences change order over time, but in each case, the same three policies appear. Prior to the orientation, ADAPT participants favored the formulation of a national urban development strategy as the priority policy. This response may represent either a tacit analogy with a recent national venture--the aerospace program--or it may reveal a knowledge of and concurrence with the opinion of informed urbanists.*

At the end of August the policy most frequently recommended was that mayors be provided more money and greater expertise. Was this merely a parroting of a favorite theme of ADAPT panelists, guest lecturere, and staff members? Was it an independent judgement, derived from the issues and problems discussed during the orientation? Or were these the reactions of out-of-work engineers,

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*The analogy is as follows, repeating the very phrases the participants used throughout ADAPT interviews:

> The country needed us once before for the space program and we prepared ourselves and contributed. Now priorities are changed and, though the Nation no longer needs us in aerospace, there are other large missions we can join. We're not, individually, concerned with aerospace per se; rather, we are professionals who can advance a technology program to help the cities just as well. Let the priorities change, but let us also be given a chance to contribute our hard-earned skills

eager to apply their skills and new knowledge at the executive level of municipal government? In February, with two-thirds still out of work according to NLC/USCM figures, the top choice of the three shifted to a policy that would create more jobs for low-income families, a category in which many participants now found themselves.

The ADAPT enrollees were less consistent in ranking lower-level priorities together. The housing construction policy enjoyed a dramatic shift from eighth position to fifth position at the end of the orientation. Meanwhile, the popularity of pollution control policy plummeted from sixth place to last priority. Both policies had moved back toward their original positions by mid-February. The behavior of rank order preferences over time, in short, suggests that the policy preference questions are measuring two things: (1) ADAPT participants' conceptions of urban problem-ameliorating policies that would serve their own professional and economic interests as well; and (2) short-term effects--expressed in policy preferences--of the orientation that tended to dissipate over time.

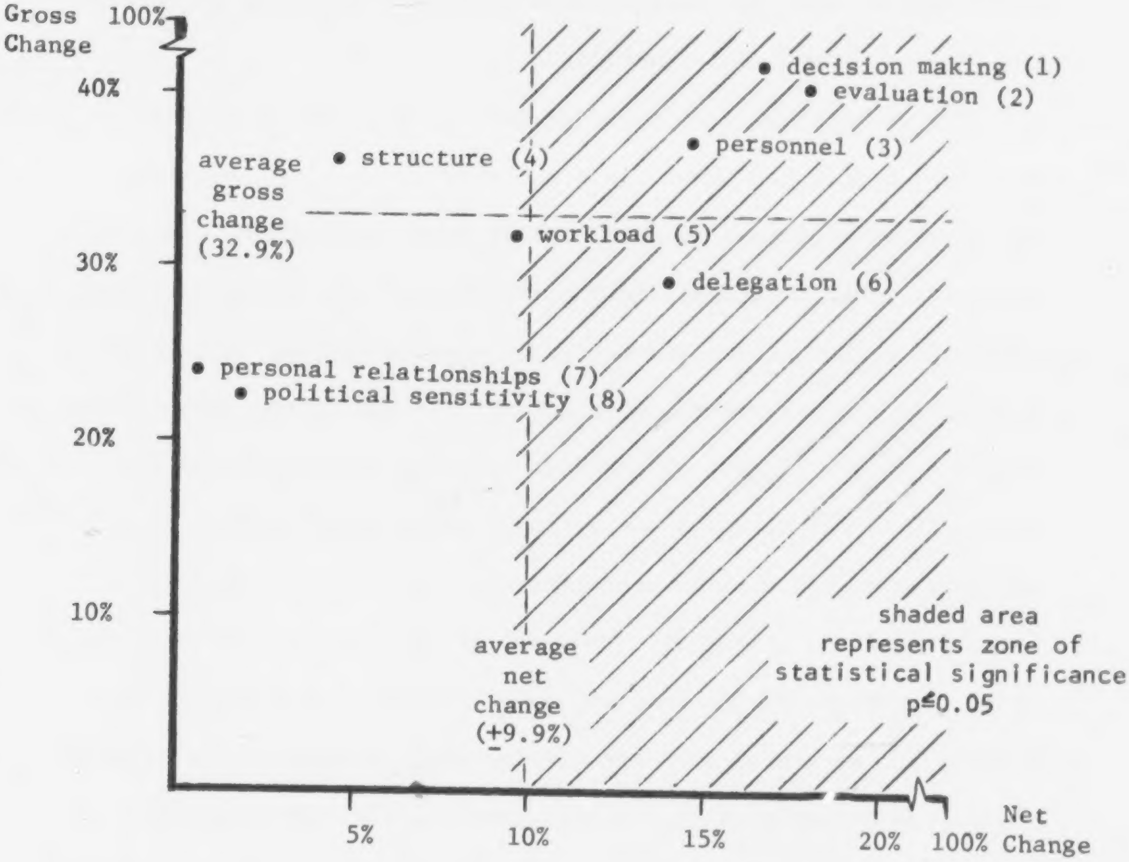
In addition to improving the participant's vocabulary and understanding of urban problems, Project ADAPT was designed to orient them to what might be a different work environment for many. Changes in perspectives were measured by a series of comparison questions. Prior to the orientation, participants were asked to compare public agencies to their aerospace and defense organizations. They were asked to make the same comparisons at the end of August, then again in February. Table E and Figure 5 summarize the participant's responses. As with Figure 4, both gross and net changes during the August orientation are reported. And, as in Figure 4, changes must be interpreted in light of the nature of the question and the initial agreement as to similarity and difference of environment.

Unlike the responses to the "agree-disagree" questions, responses to the comparison questions were consistent in the direction of net change: ADAPT participants found more difference than similarity at the end of August than they did at the beginning. Furthermore, most of the net changes were statistically significant in the direction of difference. For those comparison items in which little net change occurred, explanations are readily available. For example, most participants (72%) felt at the outset that aerospace differed from public agencies in terms of the political sensitivity of decisions. Gross change of opinion on this item was less than on any other item in the comparison group. The fact that the largest net changes occurred on items requiring a more intimate acquaintance with the internal workings of municipal agencies--e.g., decision-making process, the way personnel are evaluated, and patterns of delegation of authority--

TABLE E: PARTICIPANTS COMPARISONS OF URBAN GOVERNMENTAL WITH AEROSPACE AND DEFENSE ORGANIZATIONS, BY TYPE OF EMPLOYMENT

COMPARISON ITEM	ORGANIZATIONS ARE SIMILAR				ORGANIZATIONS ARE DIFFERENT				Totals	
	Employed In Public Agency		Not Employed In Public Agency		Employed In Public Agency		Not Employed In Public Agency			
	#	%	#	%	#	%	#	%		
1. Decision making process	6	24%	27	39%	19	76%	43	61%		
2. Way personnel evaluated	10	40	31	46	15	60	37	54		
3. Quality of personnel	11	44	32	46	14	56	37	54		
4. Structure of organization	9	36	37	53	16	64	33	47		
5. Amount of work assigned	8	32	28	42	17	68	39	58		
6. Delegation of authority	13	52	39	57	12	48	30	43		
7. Personal relationships	17	68	51	74	8	32	18	26		
8. Public respect for services	6	24	20	29	19	76	50	71		
AVERAGES	--	--	33	48%	--	--	36	52%	69	100%
	10	40%	--	--	15	60%	--	--	25	100%

FIGURE 5: CHANGE OF ADAPT PARTICIPANTS' COMPARISON OF AEROSPACE ORGANIZATIONS TO PUBLIC AGENCIES DURING THE MIT ORIENTATION (N=180)

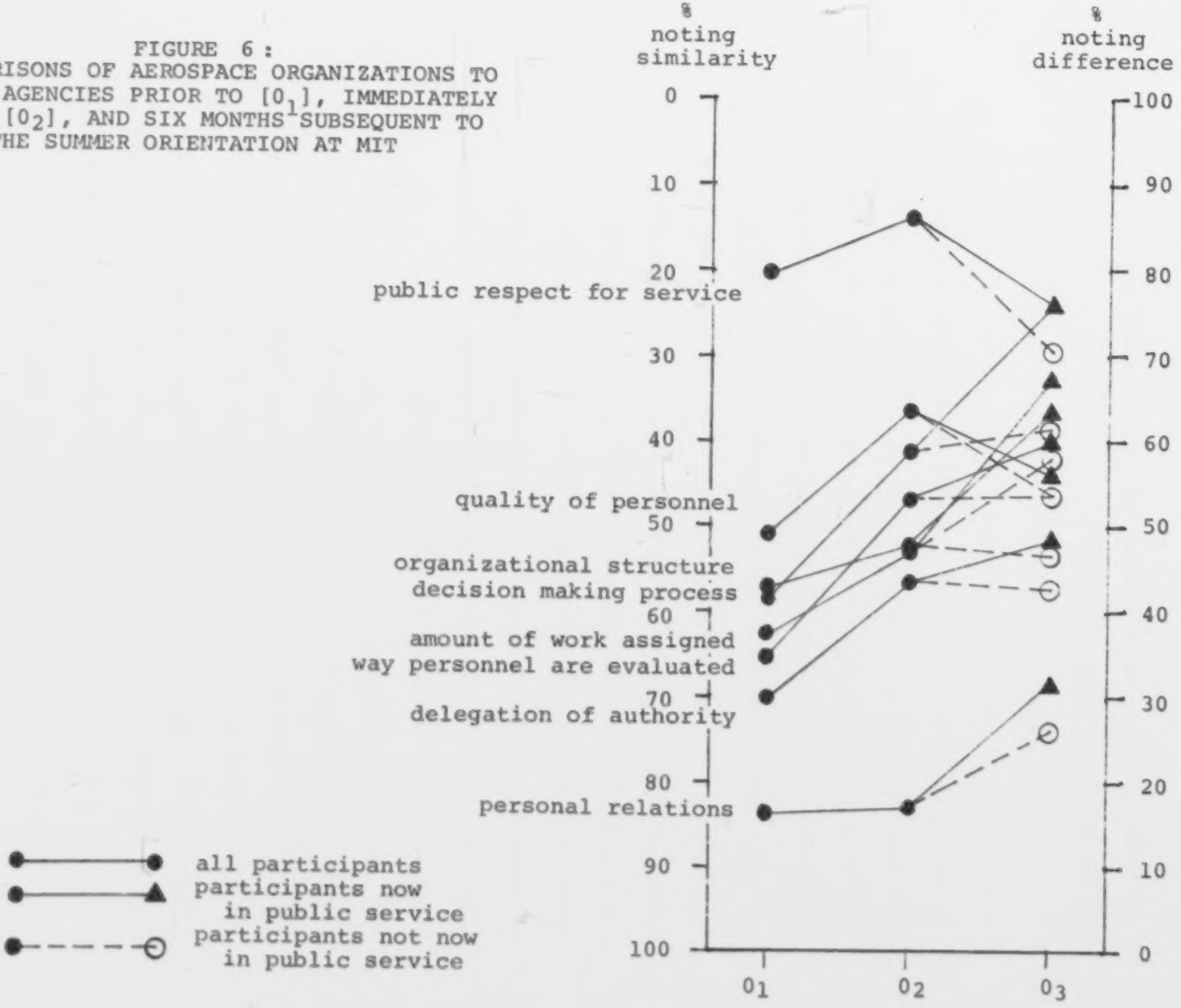


Comparison Item	Percent Noting Difference		Change In Perspective	
	Pre-MIT	Post-MIT	Net	Gross
1. The decision making process	42.0%	58.6%	+16.6%	43.2%
2. Way personnel are evaluated	35.0%	53.1%	+18.1%	38.4%
3. Quality of personnel	49.2%	63.8%	+14.6%	37.3%
4. Structure of the organization	42.9%	47.3%	+ 4.4%	36.2%
5. Amount of work assigned to employees	37.4%	46.9%	+ 9.5%	31.9%
6. The delegation of authority	30.0%	43.9%	+13.9%	29.5%
7. Personal relationships among employees	16.2%	16.8%	+ 0.6%	24.0%
8. Political sensitivity of decisions	72.6%	74.3%	+ 1.7%	22.9%

would suggest that the participants' exposure to public officials led them to make new distinctions.

The new distinctions noted by participants appear to have been more firmly held than their preferences for urban problem-ameliorating policies. Indeed, unlike their opinions on the nature of urban problems, ADAPT participants' distinctions between aerospace organizations and municipal agencies appear to have grown sharper in the six months subsequent to the end of the orientation (See Figure 6). Except on one item, greater percentages of respondents to the February survey noted differences between private and public sector work environments than all ADAPT participants noted at the end of August. However, if the distinctions made by those in the sample who were employed in public agencies (in February) are separated from the distinctions of those who were still unemployed or employed in private agencies, the same response-pattern that characterized other answers reappears. An analysis of Table E suggests that those who obtained employment in public sector agencies were more inclined to distinguish between aerospace organizations and public sector agencies than were other respondents. This is particularly true of comparisons of organization structure, decision-making process and workload factors. Although the differences are less pronounced for other factors the result is the same: those currently employed in public agencies are more inclined to make distinctions than those who are not. Taken at face value, this result would tend to justify efforts of the orientation that

FIGURE 6 :
COMPARISONS OF AEROSPACE ORGANIZATIONS TO URBAN AGENCIES PRIOR TO [0_1], IMMEDIATELY AFTER [0_2], AND SIX MONTHS SUBSEQUENT TO [0_3] THE SUMMER ORIENTATION AT MIT



led ADAPT participants to distinguish between public and private sector work environments.

Are other changes in knowledge, opinions and expectations also validated by the experience of those who obtained employment in municipal agencies? Answers to this question can be sought in the comments of those employed in municipal agencies who responded to the survey questionnaire and in the experience of those interviewed by members of the Project ADAPT staff in March and April.

3. JOB PERFORMANCE. A most visible measure of AEP's contribution to capacity building objectives is the performance of those who obtained public service employment through the AEP. It is on the job that assumptions undergirding AEP recruitment, selection, orientation, job development, and matching procedures are translated into concrete, visible contributions. However, as is the case with other measures of complex phenomena, any performance measure may be incomplete and even misleading.

First, "effective performance" is not only difficult to define; it is also difficult to measure. Project ADAPT staff investigators discarded the notion of applying a specific, "objective" definition of effective performance in the early stages of the monitoring phase. This judgement was confirmed in discussions with AEP officials and representatives during January 1972. Rather, performance would be defined more subjectively by the ADAPTer and his supervisor(s), on a case-by-case basis. At each job site selected for interviews, the Project ADAPT field interviewers would ask both the ADAPTer and his immediate superior to assess the new employee's performance to date, then compare their answers and attempt to synthesize them into a general rating. Even this approach to assessing performance is not without hazards. An employer and his new subordinate might disagree as to what criteria should be taken into account in assessing performance. One aggressive newly-elected mayor, for example, criticized an ADAPTer he had appointed to head a city department on the grounds that the new department chief was not being sufficiently aggressive in making changes. The ADAPTer, an administrator with considerable experience in both public and private organizations, was aware of the chief executive's opinion but felt that the mayor was inclined to "shoot from the hip". The ADAPTer preferred to "get the feel" of a situation before taking major initiatives. The town manager of another community expressed a similar opinion: "A new city government employee should take the time to learn the reasons for the way things are done as they are before he begins to make suggestions for change."

Even when a superior and subordinate agreed on appropriate criteria for assessing performance, they may have disagreed in their assessments of performance on a specific criteria or on the relative weight that criterion should receive in making an overall assessment. In one situation a superior and subordinate agreed that the ADAPTer's performance should be measured largely in terms of the savings and management improvements the new budgeteer could make for the city government. The subordinate and his superior, however, disagreed about the subordinate's actual contribution in that area. In such cases, Project ADAPT staff tended to give more weight to the judgement of the supervisor. However, there were some circumstances under which the ADAPTer's point of view was deemed to have considerable merit. In one case, for example, an ADAPTer's boss appeared to the MIT interviewer to be inflating his own sense of importance by denigrating the performance--and character--of his new employee. So severe was the invective that the interviewer wondered why the supervisor had decided to hire the ADAPTer in the first place. A few other employers appeared to provide similar--though usually subtly expressed--judgements of their employee's performance. A few ADAPTers and their supervisors appear to have taken the visit of an MIT interviewer as an occasion to perform before an audience, who had little recourse to an alternative point of view.

Differences in weight given to different aspects of performance also contributed to problems of assessment. In one instance an ADAPTer reported that he was "in general, doing very well." On examination he seemed to have based his valuation on the relative success of a few projects he had completed since joining the agency. His supervisor recognized the value of the projects to the agency, but added that, in general, the ADAPTer had overestimated both the importance of the projects and the effectiveness of his performance.

Still another problem in assessing effective performance arises from the fact that many--if not most--ADAPTers have been on the job less than three or four months. Many supervisors were somewhat reluctant to offer more than a tentative evaluation, pointing out that realistic assessments would be difficult until the new employee has had adequate opportunity to learn the agency "ropes." Most were willing, however, to indicate whether or not the ADAPTer appeared to be performing up to their expectations as of the time of the interview. Many would indicate whether the ADAPTer seemed to be making rapid progress or relatively slow progress. Also, supervisors usually provided interviewers with insights into the problems they were having in obtaining effective performance from their new employees. Hence the performance measures used in this report involve a rough, two-way categorization.

Each ADAPTer's job performance--as represented by a combination of the assessments of the ADAPT participant and his immediate superior--is classified into one of three categories: (1) performance is about as effective as could be expected at this time: (2) performance is more effective than anticipated: and (3) performance is somewhat less effective than expected. Each ADAPTer is also placed into a second set of categories that relate to his rate of improvement: (1) performance is improving more rapidly than anticipated; (2) performance is improving at a rate commensurate to the expectations; and (3) performance appears to be lagging behind expectations.

Interview data relating to performance is summarized in Figure 7. As the table indicates, the great majority--nearly 9

Figure 7: CURRENT LEVELS OF PERFORMANCE AND RATES OF IMPROVEMENT OF ADAPT PARTICIPANTS IN PUBLIC SERVICE JOBS IN MARCH, 1972

Improvement Rate	Current Performance Level		
	below expectation	expected level	above expectation
above average	0	3	4
average rate	1	9	2
below average	2	4	0

out of 10--of those interviewed are performing up to or better than anticipated levels. Most of these ADAPT participants (about 75%) show a rate of improvement in their performance that meets or exceeds their superiors' expectations.

Given the assessment problems discussed above, the utility of the table is limited, but it permits an analysis in terms of groups which might yield some useful generalizations. The extreme groups--those who are doing better than expected both in current performance and rate of improvement, and those who exhibit a somewhat disappointing performance on both counts--are easily distinguished from those who fall into the more centrally located cells of the matrix. Some of the factors that appear to be associated with performance levels above expectation and those that seem connected to performance levels below expectation can be discussed. Patterns of problems in performance that seem common to members of the larger, more representative group can be identified.

Two of the subordinates whose performance exceeded their superiors' expectations--and, incidentally, their own expectations--found themselves in relatively undefined job situations: one is a coordinator of a multi-municipality consortium organized to plan and execute Emergency Employment Act (EEA) activities; the other is a mayoral assistant hired from EEA funds. The EEA coordinator had demonstrated his executive capability in his pre-AEP career: he had formed and managed his own special-component manufacturing firm.

(It collapsed with the aerospace and defense industry cutbacks, as did many other sub-contractors who served narrowly defined defense-space markets.) Public officials who participate in the consortium appear to rely increasingly on his judgement, both in terms of defining their cities' manpower needs and in terms of particular applicants for EEA jobs. He has taken the initiative in presenting a case to state and federal officials that his consortium is receiving a disproportionately small share of available EEA funds. Despite the fact that his experience as a labor organizer and as an executive serve him well in his position as coordinator, this ADAPTer feels that his work is "parasitic" and wants to get into a job that provides a tangible product other than "paperwork".

The role of the second ADAPTer was similarly unclear at the outset: the new mayor needed an assistant who could handle certain delegated tasks. This left the new assistant free, in large part, to create a role for himself. And, although his experience in industrial plant management provided some sensitivity to administrative problems, the qualities that led to his unexpectedly effective performance seem to be largely attitudinal. Even before he secured the assistant's position, he had determined to become a city manager and to learn as much about municipal government as possible. He joined the International City Management Association (ICMA), and then persuaded the mayor of his community to take him on. He views himself largely as a "servant of the people" starts work early, stays late, and takes work home--something he reports he never did in the private sector. His approach to organizational change is to help people see that the idea for a modification was "really theirs all along". Yet he reports that he has had "millions of ideas" since he started his new job and puts them all in a notebook. The mayor says he never has to check on his assistant because "...he's always doing something that needs to be done." In short, this ADAPTer's creativity, diplomacy, and energy have been an unanticipated bonus for the mayor's staff.

Expectations were higher in the beginning for two other ADAPT participants, but they, too, represent an unanticipated bonus for their employers. Both ADAPTers have been assigned management analysis and administrative duties in City Demonstration Agencies (CDA's) of a large model city. The recruiters for both agencies have enlisted several people from the ADAPT roster. Ironically, each felt he had secured the "stars," the "cream of the crop."

One CDA official identified and hired four ADAPT participants to help him with a management analysis of a large city government structure and to contribute to implementation of changes identified thereby. He claims that all four have met his expectations. But one of the four has performed so well that he has promoted him to the level of a special assistant and has entrusted him with a number of supervisory tasks. This participant was trained in economics, finance, and quantitative management techniques. Before layoff, he had served as a budget officer in the cost-control unit of a specialized subsidiary to a major aerospace firm.

In another major city government, a department chief wanted to maintain the analytical capacity of his staff. He hired two, then several more, ADAPT participants. One of the first two disappointed his expectations. The other appears to have exceeded them. The latter is in charge of the department's quantitative analysis section, and appears to have already made substantive contributions to departmental decision making processes. This 35-year-old ADAPTer has an advanced degree in industrial engineering. He worked for the manufacturing manager of a special purpose aerospace outfit as a management planning and control specialist before the economic downturn in the aerospace industry forced his company to cut back in personnel. Curiously, this ADAPTer has one complaint: his superiors have not yet learned how to use his skills to the utmost.

Those whose performance appears to be below expectations relate that a central problem is the use of their professional skills. In each instance, a part of the ADAPTer's performance problem is a mismatch between his training and experience and the nature of the tasks he has been asked to do. One ADAPT participant, for example, had been trained in biology and chemistry. His new job title is "Environmental Scientist," but his actual work assignment is to review land subdivision applications--a task usually performed by landscape architects, civil engineers, or city planners. Another ADAPTer, whose experience is in mid-management and computers, is serving as a welfare caseworker. But other ADAPT participants have faced similar skill-transfer problems and have managed to meet or even exceed their supervisors' expectations. The difference between the two groups seems to stem from personal factors, beyond the reach of a brief orientation.

One identifiable factor common to all ADAPTers experiencing great difficulty is that they all accepted early job offers for reasons other than the kind of work the new position might require of them. One ADAPTer took his job, he admits, because he desperately needed the income; another because the job offered security and was within easy commuting distance from his home. However, other ADAPT participants who now hold public service jobs expressed similar reasons for taking the positions they now hold. Their performance may or may not meet their supervisors' expectations, but their rate of improvement is better. Therefore, still another factor must be present in those few cases of disappointing performance.

Complex as it is to understand or to disentangle from other factors, that last factor seems to be the ADAPTer's conception of his own skills and/or sense of personal worth in contrast to the level of his position or the career trajectory his present job establishes for him. In most cases, the problem can be simply put: once the ADAPTer had been on the job a while, he realized it did not appear to lead to the career goals he had for himself. This was usually complicated by the factors mentioned above: (1) he felt obligated to take the job for economic reasons; and (2) his skills did not exactly fit the tasks he was assigned. Thus, the motivation needed to measure up to the supervisors' expectations seems to have been absent in these few cases.

Three out of four ADAPT participants interviewed in public sector jobs fall between these two extreme groups. They seem to be performing about as well as expected, and most of them are improving. Performance problems--and they are usually being ameliorated--experienced by this larger, middle group of ADAPTers fall into several categories: (1) difficulty in breaking away from the need to specialize in a technical area; (2) difficulty in transferring specialized engineering skills developed in the aerospace industry to public service jobs; (3) inaccurate assessments of the "political" ramifications of particular initiatives; and (4) problems associated with a certain arrogance derived from aerospace associations and backgrounds and/or a deprecatory attitude toward the quality of municipal government or the competence of career civil servants.

The first two problems usually occur in public service jobs that require technical engineering skills, and they usually affect aerospace personnel who performed largely technical jobs in the private sector. One interpretation of this tendency is that these ADAPT participants feel a need to develop or maintain superior engineering competence. Another is that they are driving themselves into detail, or finding it difficult to relinquish mastery of the detail in another field, because they feel insecure about their ability to perform in the nontechnical aspects of their public service jobs. Both interpretations, however, are speculative. In any event, the determination of these ADAPTers to do well on their new jobs appears to be overcoming the problem, for their supervisors report that their performance continues to improve. Thus, it may be inferred that time and experience will dissipate these difficulties.

Most of the problems encountered by supervisors in obtaining effective performance from ADAPT participants fall into the last two categories. The problem of inaccurate assessment of political ramifications of certain initiatives seems to stem from several interrelated factors: (1) utilization of a too-simple concept

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*There is one exception: an engineer had been moved to management several years prior to lay off. His public service job requires that he refurbish his engineering skills, and he reports he is enjoying the "rigor" of engineering once again. Unfortunately, he is applying more rigor than is necessary in the eyes of his supervisor.

of political-bureaucratic behavior; (2) unfamiliarity with the details of precise relation between major actors within the agency and in the agency's immediate organizational environment; and (3) aggressive attempts to get a job done in a short period of time.

In these cases, motivation is rarely a problem. Supervisors, to the contrary, had described these ADAPTers on more than one occasion as "hard charging engineers." But in their haste and determination to demonstrate their ability to get something accomplished, a few ADAPT participants have ignored local procedures of long standing, or have pursued their objectives oblivious to local bureaucratic etiquette. One supervisor remarked: "I thought _________ was going to get me fired during the first month he was here. I'd ask him to do something for me and he'd go charging off like a ___________. But he's begun to learn the ropes. Now I don't have to worry so much." By contrast, one town manager has been particularly pleased because his new assistant has taken the time to find out how things work. Before making suggestions, he tries to find out why things are done the way they are.

Despite the fact that almost every interviewee said that the summer orientation had sensitized him to the "political" aspects of work in the public sector, a few ADAPTers appear to have failed to fully appreciate the significance of the idea. The simplistic theories offered to interviewers by a few ADAPTers is instructive.

One said that government is like aerospace in one major respect: policy is made by cliques. They are different, he argued, in that the aerospace clique can only slow you down; in government, the clique (often,but not always, a political party) is more powerful, and if your clique is out power, you might find yourself out of a job.

This ADAPTer's position requires interagency coordination and his superior indicates that, although his performance is improving, he still tends to "see things" in formal organizational terms more appropriate to aerospace than to government. Another ADAPTer has developed an analogy that has helped him clarify his own concept of his role: "Municipal government is like a corporation. The community are the stockholders, and the council is the board. I am internal consultant to the corporation."

Such concepts may be useful during the initial stages of adjustment to the public sector. They may, in fact, account for initially successful performance. Further, as each ADAPTer begins to understand the specific details of the bureaucratic terrain in which he must operate, his performance may be expected to improve. Several supervisors report that this is occurring.

The more problematic instances of bureaucratic indiscretion seem to relate to certain attitudes carried over from prior experience--industrial, educational and cultural. These attitudes, expressed by a few interviewees, tend to take the form of impatience with public officials and civic servants. The severity of the problem, however, varies from case to case. In one instance, for example, an ADAPTer has publicly derrogated the administrative competence of several municipal officials. His criticism has not endeared him to politically powerful individuals within the city, and he knows it! This action may nullify his attempt to obtain a more secure administrative position in the town government. But his conduct appears to enjoy the sanction of the mayor as part of the mayor's larger plan to reform the government. Whether the ADAPTer is entirely aware of his role in the plan is not clear.

In other instances, ADAPTers report that their efforts to improve efficiency, change procedures, or influence policy have been frustrated by unusual bureaucratic resistence, even defensiveness. Remarks of their supervisors imply that their subordinates' aggressiveness and demeanor may, in part, evoke resistance. In most cases, however, they report that the ADAPTer is learning to overcome the difficulty.

In summary, then, most of those ADAPT participants now serving in public sector jobs have experienced problems. But, in general, their performance has measured up to their supervisors' expectations. As these ADAPTers acquire knowledge about their immediate organizational environment, their performance tends to improve.

V. ADAPTATION OF AEROSPACE SKILLS AND EXPERIENCE TO URBAN PROBLEMS AND GOVERNMENT NEEDS

A review of the experience of participants in Project ADAPT identified several different vehicles for adapting aerospace skills and experience to urban problems and government needs. The primary vehicle was direct employment of surplus management and technical personnel by government, and by private and quasi-private organizations concerned with urban affairs. ADAPT participants, employed individually or in teams, were assigned to various posts in these agencies. The ADAPTers' task was to apply the particular skills and experience they had acquired in earlier schooling and careers to the needs of the organizations that employed them.

A less frequently employed mode of adaptation circumvented problems associated with individual adjustments to wholly novel work environments. This was the application of aerospace technical and managerial expertise to specific projects for urban agencies, on a contractual basis. Aerospace personnel--ADAPTers among them--are employed by established industrial concerns such as Westinghouse, General Electric, LTV or Boeing. Others are employed by established or newly-created tehcnical consulting or research organizations such as the Rand Corporation, the Urban Institute, Massachusetts ADAPT Institute, Inc., or Alpha Institute.

A third vehicle for adapting experience and skills from aerospace and defense to urban problems and governmental needs involves non-work-related activities. Changes in ADAPTers' participation in civic activities--although less direct and immediate than changes in their employment--may ultimately facilitate the utilization of advanced technology in the communities where they live. Also, their engagement in the activities of the professional associations to which they belong may increase their colleagues' awareness of ways in which science and technology can help to ameliorate urban problems.

Each form of adaptation has its own advantages and problems. Using analyses of ADAPT participants' experiences with each of these modes of adaptation, the following sections of this report identify the major differences among these modes, and--where appropriate--suggest similarities. Since most of the AEP-placed participants found employment through the first mode--placement in agencies--the bulk of the analysis focuses on that vehicle of adaptation. Because fewer ADAPT participants have obtained experience in research/consulting organizations, analysis of that vehicle is less well developed.* The section on civic and professional association activities consists largely of comments made by respondents to the February survey.

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* Several studies of this kind of "conversion" are reviewed in Francis T. Ventre, Factors Affecting the Adaptation of Aerospace and Defense Technology to Urban Needs, a report to the Stern Fund, by the Organization for Social and Technical Innovation, Cambridge, Massachusetts.

Direct Employment as a Means of Adapting Skills and Experience

Over 60% of the successfully-placed ADAPT enrollees are now employed in the public sector. They are engaged in a variety of roles, many of which afford opportunities for application of techniques previously used in aerospace and defense. Although many of those now employed in the public sector have been on the job for only a short period of time, a remarkable array of successful adaptations has already occurred. A few examples:

-- One ADAPTer is employed as Chief of the Quantitative Analysis Section of the public works administration of a major mid-western city. Engaged in transportation studies, environmental impact assessment and project management systems development, he has adapted the skills he gained in aerospace to basic needs of his agency. Under his leadership the department produced a mathematical simulation of traffic movement and applied cost-benefit analysis procedures to project alternatives that emerged. (The cost-benefit calculus was widened in this instance to include "intangibles.") Linear programming techniques were used to identify satisfactory solutions to problems emerging from conflicting or incompatible standards regarding the environmental impacts of proposed public works projects. Steps have been made toward utilization of network analysis--CPM and PERT--methods of managing the department's numerous public works projects.

-- Another ADAPTer obtained an executive post in the Office of Science and Technology, that reports to the governor of a large mid-Atlantic state. His experience as an executive engineer has facilitated necessary collaboration with some of the state's major industrialists to redirect the priorities of his agency's "seed grant" activities. His efforts to improve and reorient the agency's public image may serve to salvage a portion of the agency budget, now under threat of reduction from the state legislature. Outstanding credentials in the aerospace profession undergirded his successful appeal to the engineering faculty of the state university to widen their curriculum to include training in the humanities and social sciences.

- After obtaining a temporary position as coordinator of the Emergency Employment Act in a major Eastern city, one ADAPTer employed his industrial engineering training and inter-organizational skills to reorganize the EEA recruitment, screening and hiring procedures. In a subsequent post as a city planner, he combined his interpersonal skills and general problem-solving aptitudes derived from engineering experience to produce a neighborhood redevelopment plan acceptable to the residents of the community.

- An ADAPTer recently secured an EEA position as a Regional Waste Disposal Engineer for a consortium of four New England communities. His considerable experience in system design, specification development, and operational testing of hardware prototypes is already in use. He has been assigned the responsibility of preparing a grant proposal to the federal government for funds to support the creation of a new solid waste disposal system for the consortium.

- Another ADAPT participant had several years' experience in project coordination for a major manufacturer of electronic equipment. He is now responsible for coordinating the numerous special service and ward care units of a major New England hospital. He reports that in many ways the problems of coordination are similar in both organizations. Thus, he has been able to adapt skills from industrial management to hospital management. His knowledge of electronic equipment has already saved money for the hospital's purchasing division.

- Within weeks after his appointment as assistant to the mayor of one of the fastest growing communities in the nation, one ADAPTer was assigned sole responsibility for review and presentation of the city's annual budget. His industrial management experience apparently served him well: his budget presentation was accepted without question by the city council and department heads alike. It included a 5.2% "inflation factor" increase, yet yielded a net reduction of $500,000 from an originally proposed budget of $44 million. As a result of his effort, he has been asked to prepare a reorganization plan for the city government, and to recommend procedures for computerizing the city's record-keeping. Both tasks will require that he draw from his management experience.

-- One ADAPTer had considerable experience and formal training in financial management. He secured employment as Finance Administrator of the municipal government of a large city in the Southern United States. He immediately created a revolving fund to keep the city's liquid assets available for quick use. He increased employee productivity by installing a memo documentation system and by developing a clear-cut division of responsibilities and a set of job descriptions. He has initiated the practice of submitting a monthly financial report to the city manager and is currently engaged with the task of moving the city's accounts to a fund accounting system.

-- One ADAPTer is using the knowledge of mechanical engineering he developed in aerospace to develop system specs for air conditioning equipment to be installed in proposed facilities of a state highway division. His basic engineering skills provide a solid foundation for solving the varied engineering problems assigned to his "catch-all" technical unit within the department's engineering division.

-- One ADAPTer's experience in project planning and management for a defense contractor previsaged a unique adaptation to public sector needs. He now monitors hardware procurement contracts for a federal agency. Part of his responsibility requires that he review his agency's procurement specifications and the project production plans of competing private contractors.

The array of apparently successful adaptations described above is not exhaustive, but does illustrate the variety of ways in which aerospace and defense techniques have been adapted to public service needs. There are also examples of less-than-successful or incomplete adaptations. A few examples may enlighten the analysis to follow:

-- An ADAPTer whose formal training was in biology and chemistry had considerable experience in quality control and testing in the private sector. He secured a position as an ecological scientist in a regional environmental protection agency. Although he describes himself as a "naturalist" and expresses interest in environmental problems, his ability to adapt his experience to his new job appears to have thus far been limited. His supervisor judges that the ADAPTer's recommendations on subdivision applications fail thus far to satisfy his (the supervisor's) constituents. The supervisor reports that in general the ADAPTer is ill-suited to the job and doesn't yet know how to survive (politically), but expresses optimism about about his ability to learn on the job. For his part, the ADAPTer appears demoralized, unable to articulate a concept of his role in the agency or to clearly delineate the nature of his task, except as that of surviving and keeping the job.

-- Through the EEA, one ADAPT participant secured a job as a caseworker in a large public welfare agency. His background includes work with special purpose and hybrid computers. He has worked on the development of solid-state hardware and display equipment for the Apollo mission. He has some management experience. Despite the fact that he organizes well, thinks well, and is performing about as well as the average beginning caseworker, his supervisor feels that he is "overqualified" for the job, "undercredentialed" to move beyond the entry level in the department, and likely to submit a "10-day notice" at any time. The ADAPTer is chagrined that his qualifications are not suitable for upward mobility within the department, but he feels that he must "crack" the bureaucracy from a low entry level because successful entry to the mid-manager level would require political affiliations he does not yet possess. He is in fact awaiting response on several applications for positions to other public agencies in the area.

-- Another engineer had become an energy transfer specialist in the aerospace industry. Although his basic skills permit him to handle problem assignments in an engineering unit of a state transportation department, he admits that the job demands more "judgment" than "rigor" and that he prefers to be more rigorous than his colleagues in the department. His supervisor makes a similar observation, adding that his productivity is nevertheless improving as his capacity for "judgment" increases.

-- One ADAPTer secured a position as director of the research and analysis division of a large city public works department. Despite his administrative experience in aerospace, he was unable to manage his division and left the agency. His immediate superior had apparently undermined his authority by indicating to several professionals who joined the agency about the same time that the appointment to the directorship was tentative. Should any one of them demonstrate superior capability, he might be asked to assume the director's position. The ensuing competition that developed among the ADAPTer's staff apparently weakened his ability to manage the unit. He appeared to hold less interest in his new role than in returning to aerospace research; he was reluctant to move his family into the city; and he seemed not to relish the inter-agency coordination activities required of the unit's director. These factors appear to have had a debilitating effect on his ability to adapt his aerospace experience.

An impressionistic review of the cases described above suggests that managerial and technical personnel from aerospace and defense are finding various ways of adapting their skills and experience to the needs of organizations concerned with urban problems, although not all are successful. What accounts for successful adaptations? What factors explain instances where efforts at adaptation seem to have gone unrealized? An analysis of the ADAPT field research data reveals that a few basic, almost "common sense" factors may explain the differences between successful and less-than-successful adaptations. These are examined in turn.

1. THE KIND OF WORK TO BE PERFORMED. The experience of over twenty ADAPT participants in public agencies shows that--as the ADAPT staff had anticipated--adaptation occurs most frequently when the work to be performed is essentially managerial or requires the technical knowledge and general problem-solving skills possessed by professional engineers.

The array of adaptations examined thus far is so richly varied as to render detailed analysis a hazardous endeavor. Therefore the comments below should be interpreted as suggestive rather than definitive.

Many, if not most, ADAPT participants had gained their professional work experience in project-oriented organizations, i.e., in organizations whose missions were relatively well-defined and bounded, often with a specified and frequently short duration. Approximately three-fourths of the group had been previously employed by project-oriented organizations rather than by manufacturing, production-oriented firms. Whether their experience had been primarily on executive management levels (21%), engineering management (17%), lead engineering (33%), or engineering operations (29%), most were familiar with management techniques associated with project planning, budgeting, implementation, and control.* These project-oriented management techniques required that project objectives be clearly defined and emphasized the importance of meeting contract deadlines. Thus, the management techniques from most participants' work experience appears to be most easily adapted to public agencies whose workloads are organized on a project basis. The large public works agency is an excellent example. The agency's activities are normally organized around a series of projects being proposed or under execution; project outcomes can be clearly specified in advance; and PERT/CPM network analysis can reveal ways to organize and control resources to meet a series of scheduled deadlines.

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* Cutbacks in government procurement activities account for layoffs in many cases. ADAPT enrollees frequently obtained short term project-by project employment in different firms or in different roles just prior to a period of sustained unemployment.

Most of the technical personnel who attended the MIT summer orientation were familiar with data processing. A considerable portion of the group had, in fact, helped to develop management information systems for improving project control. In a few instances, ADAPT participants now in public service jobs have been asked to perform analyses of their agencies data collection and record keeping activities in preparation for mechanizing those functions. At least one ADAPTer has already begun to implement a component of a management information system where none existed before. He determined that the city's motor pool was sufficiently large to justify the development of a record system to keep track of maintenance, vehicle usage and fuel consumption. The system is designed to improve the management of the motor pool and implementation of the city's depreciation policy.

In agencies where the work performed is more analogous to industrial production processes -- e.g., in agencies providing constant flows of services -- the skills of ADAPT participants with experience in operations research and industrial engineering appear to be more adaptable. The ex-engineer who produced a process-flow analysis of the EEA program in his city was able thereby to considerably reduce the time required to place unemployed residents in jobs. Another engineer used his general analytical capability to devise potentially more efficient methods of refuse collection for a city sanitation department. The fact that he had little supervisory experience, per se, meant that he had to develop the management skills necessary to implement the identified changes. Thus it is important to distinguish between the analytical and problem-solving skills used to identify potential improvements and the administrative or leadership skills necessary to implement proposed modifications. The resumes of ADAPT participants reveal that most of the technical personnel now employed by public agencies possessed the requisite analytical skills; but this source is less helpful in estimating their administrative and management leadership abilities.

Some of the more prominent examples of adaptation involved the use of analytical skills to solve management problems. One Model Cities official hired four ADAPT participants to conduct a management analysis of various programs administered by his City Demonstration Agency (CDA), and to analyze the operations of the municipal agencies whose activities were related in some way to the CDA's ability to implement its programs. That official told the ADAPT staff that he felt ADAPT participants would possess a basic analytical discipline, without the organizational "hang-ups" usually affecting analytically-oriented personnel from the agencies themselves. He now reports that his expectations for the four ex-aerospace professionals have been satisfied.

Much of the substantive work performed by two ADAPTers in a public works department involves their application of analytical skills to resource-allocation problems. Cost-benefit analysis procedures and mathematical decision-aiding tools such as linear programming and mathematical simulation models have already been used to develop rationales for more efficient use of the department's funds. In this context, it should be noted that few municipal governments have public works programs large enough to afford the services of a special analysis unit, and that the more productive of the two ADAPTers placed in the unit mentioned here had obtained a considerable amount of formal training in the application of quantitative analysis to decision-making problems prior to his enrollment in AEP. There are, however, numerous instances of application of more fundamental information collection and analysis skills to public service needs.

One ADAPTer secured a job as a management systems analyst in a suburban community in Massachusetts. He reports that work habits he had developed as assistant to the director of several government prime contracts have enabled him to assume a role as an "objective alter-ego" to the town's manager. In aerospace, he had monitored the performance of subcontractors who were responsible for producing components of prototype and test-model equipment. In that job, he developed fact-finding and diplomatic skills that now permit him to easily perform the various special "low-profile" investigative assignments given him by the town manager. On one occasion, for example, an ecology group used the editorial page of the local newspaper to blast the town's road salting practices. The town manager asked his new assistant to find out exactly what those practices were, so that he could answer questions from town leaders at the next council meeting. The ADAPTer discretely collected the necessary information and developed a presentation for the town manager to deliver at the meeting. His discovery that the road maintenance department actually used more gravel than chemicals in its winter street salting operations helped the manager de-fuse the controversy. The ADAPTer used his diplomatic skills to full advantage on another occasion. A dispute between the town's municipal employees' union and the town council weakened the credibility of the town manager with both groups. The ADAPTer unobtrusively collected data on municipal personnel costs. His analysis of the information contributed to the level of objectivity that characterized the ensuing negotiations. Mundane and unglamorous as these incidents read, they nevertheless are reported by the ADAPTER's superior to have contributed to the effectiveness of the professional management of that municipality.

At least two other ADAPT participants took similar positions in municipal governments in the same section of the country. One has been able to adapt some of his administrative experience in production control and facilities management to the tasks a newly-elected mayor has delegated to him. This ADAPTer's "common sense" analytical skills have been quite useful, but his primary asset is his energetic, positive attitude toward his work and the people with whom he deals. The other ADAPTer set out to prove to the chairman of the board of town selectment that his administrative experience in aerospace qualified him for a position as executive secretary of the town government. The selectman now agrees that the ADAPTer's administrative experience is sufficiently flexible to permit him to assume roles as a planner/engineer, an executive secretary, a comptroller, or a grantsman. Indeed, this ADAPTer appears--by virtue, in part, of his long-standing friendship with the selectman--to have parleyed an Emergency Employment Act (EEA) job into a role that can be described as instrumental in the chairman's strategy to reshape the bureaucratic power structure within the town government. Whether he can survive the intra-governmental animosities his aggressiveness has helped to enflame is still in question. Again, mundane as it reads, this is the stuff of local government in smaller cities and towns.

Other ADAPT participants have been able to transfer their organizational skills to the more purely administrative tasks of public agencies. Whether as the head of an organization or as an agent for another municipal official, several ADAPTers have contributed to improved organizational performance by creating or standardizing job descriptions and developing formal, rationalized communications systems within municipal agencies. Others have sought to improve coordination of activities both within and among municipal agencies by establishing formal report submission requirements and by instituting staff coordination and training meetings. Although some ADAPTers claim to have eliminated some duplication and inefficiency with these measures, several of those in administrative positions have taken a longer perspective, indicating that benefits to their organizations may not show up for some time. A city administrator confided, for example, that 10% of his time is spent on personnel problems. One of his main frustrations is "...trying to teach old dogs, capable though they are, to change their ways." He confidently told the ADAPT staff interviewer:

> "I'll get better with the people. Personnel problems will partly retire themselves."

An ADAPT participant now at work as a public works administrator put it this way:

> "It takes you a year or six months to feel out a situation. What I have accomplished so far will be reflected in the achievements over the next year or two."
>
> "I haven't come out real strong yet. You come in like a lamb, get you ducks all in a row..."

This ADAPTer is a veteran executive who has served both in the private sector and in municipal public works departments. His experience and that of other ADAPT participants who now hold executive-level positions in public agencies, suggest that executive-level responsibility demands less technical proficiency than it does standard business executive skills [which can also be adapted from aerospace or defense organizations]. Their experience also suggests that problem-solving aptitudes of a different kind may be required for administrative responsibility.

In contrast, basic technical competence has proved essential to those ADAPTers who obtained employment in public service engineering. Thus far, ADAPTers who have a firm grasp of basic engineering and technical skills have fairly easily adapted their experience to public sector needs. Those engineering and technical personnel who, once they were on the job, discovered that they were overspecialized--both in terms of skills and interests--have reported more difficulty. The engineer who points out that his new job requires more "judgment than rigor" suffers from his acknowledged preference for the latter. But he is adjusting: his basic engineering skills are serviceable and he is gradually learning to apply the "judgment" his job requires. Another engineer, less conscious of the problem, seems unable to resist the urge to become a specialist in a new field. Despite the fact that his job is production-oriented, or, perhaps, because the level of engineering knowhow required is far below his achieved mastery, he pursues the inviting--but unnecessary--detail work that is available to him. Most technical personnel in similar positions have reported to ADAPT that the process of adaptation is merely a matter of time. By using their basic skills and considerable experience, they feel they can obtain the special knowledge they need while on the job. Most of their supervisors concur in this view.

2. PERCEIVED NEED FOR TECHNICAL SKILLS. In most instances of successful adaptation reported thus far, a key factor seems to have been the employers' recognition of a need for the skills adapt participants could apply to the problems of their agency. The more clearly an employer could discern the relationship between problems he faced or objectives he sought and the specific skills the ADAPTers offered, the more probable was an early adaptation of those skills and, ultimately, effective agency performance. The chief executive of a city government in the Southern United States felt that his budget staff needed aggressive leadership. He had already laid groundwork for moving the city's books to a fund-type

accounting system. He hired two ADAPTers: one as budget director and the second as financial administrator. With strong executive support, both have moved rapidly to effective changes envisioned by their supervisors prior to their recruitment. The finance administrator was subsequently able to implement the motor pool information system discussed earlier because both the city auditor and the motor pool manager recognized the need for the information.

The analytical skills of four ADAPTers were put to immediate service primarily because their supervisor--a new director of management information and evaluation for a CDA--had formulated a strategy for organizational innovation that required their specific skills. The Model Cities concept requires that CDA activities be coordinated with activities of other municipal agencies. The supervisor's goal was to reduce some of the inefficiencies created by the required interagency coordination. He decided that his staff should "delineate and identify" the bureaucratic process, "so that Model Cities would be able to effect changes in it to facilitate the more expeditious delivery of services." For this analysis he needed management analysts with a particular scientific or management discipline. But he wanted them to come from outside city government: he would trade the advantage of having staff with a "certain amount of savvy about the workings of city bureaucracy" for the independence and objectivity "outsiders" could bring. The four ADAPTers satisfied his criteria. The team has already produced an analysis that could cut the budgetary process from twenty-six steps to ten.

Take another case: the inter-agency coordination required to implement EEA procedures in one Eastern city had become so entangled that some applicants were forced to wait several weeks for approval of tentative acceptances. Anxious that the city might not be able to secure its full complement of EEA funds, and determined to reduce waiting time for applicants, officials from various city agencies readily accepted the ADAPTer's proposed revision of the coordination procedures.

The city manager who has benefited from the discreet investigative skills and diplomatic demeanor of an ex-aerospace subcontract manager knew in advance the sort of organizational skills his new assistant would have to have. Contrast this to the public welfare supervisor who was rather suddenly presented with an unrequested new caseworker, a former aerospace computer technician/ project manager. The caseworker's attempts to adjust to his new role were apparently made somewhat difficult by his supervisor's bewilderment about the reason for his presence. Convinced that "politics" was involved in this ADAPTer's appointment, the supervisor seemed reluctant to give him the support he needed to facilitate the transition.

Wherever an urban executive perceived a concrete and well-defined need before employing--or better, before recruiting and selecting--an ADAPT participant, a successful adaptation was accomplished. This suggests that the clearly specified demands or needs of urban agencies are as important as the selection and orientation of the supply of skilled personnel. At the minimum, the issue of analyzing public sector demand should be addressed in planning future projects of this type.

3. PSYCHOLOGICAL FACTORS AFFECTING ADAPTATION. Psychological factors appear to account for differences in adaptation in several instances. Among them are the ADAPT participant's satisfaction with his new employment situation, his general interest in pursuing a public service career, and his ability to identify problems to which he might apply his particular skills.

In several instances, apparent difficulties of adaptation stemmed from an ADAPTer's dissatisfaction with some aspect of his job situation. For example, although one ADAPTer had reconciled himself to an entry-level salary about one-half of what he had earned in aerospace, his present salary is only one-third of what he had received before. His job performance seems adequate, but he has made little attempt to conceal that he is seeking work elsewhere in the public sector. The supervisor is aware of his new employee's dissatisfaction. He told the ADAPT staff interviewer that he is sympathetic to his employee's plight, but that the ADAPTer seems unwilling to initiate measures to incorporate himself--and his skills--more productively into the supervisor's staff. Coincidentally, the most successful instances of adaptation (with a few exceptions) seem to have occurred in cases where the ADAPTer's present salary is less disparate from the salary he received just prior to leaving aerospace. It does not follow that higher pay, per se, tends to increase the probability of adaptation. Rather, the field data suggest that to most ADAPTers, salary level is only in part a measure of self-worth and professional identity. A monthly income from public service employment that equals or exceeds their monthly income from aerospace may have little to do with their ability to adapt their skills and experience to the needs of a public agency. But if an ADAPTer's civil service salary is substantially lower than the salary he received in aerospace, his ability to find ways of adapting his skills may be impaired because his own self-esteem is reduced, thus impairing his professional functioning.

The willingness of another ADAPT participant to apply himself to a relatively attractive job in the public sector appears to have been debilitated, in part, by his dissatisfaction with an aspect of his job situation other than pay. Although his salary was reduced by 12% to $20,000 per year, his complaint was not pay, but the agency's requirement that he move his family into the city where the agency is located. He has several school-aged children and resented the prospect of enrolling them in the city's public schools.

Less serious--but nevertheless present--problems of adaptation stem from dissatisfaction with the level of insecurity inherent in the positions ADAPTers obtained. In spite of their employers' assurances to the contrary, a few ADAPTers in EEA jobs believe their positions to be tenuous and short-term, at best. One ADAPTer found an EEA position that demands considerable adaptation of his skill in developing system specifications and operational testing devices. Yet the time he feels obligated to devote to finding a more secure position detracts from his ability to give full attention to his present task.

The issue of job security seems less bothersome for another group of ADAPTers. They have assumed the initiative of making themselves valuable resources to those who might insure their job tenure and/or advancement. One mayor, for example, placed an ADAPT participant in an EEA position as a mayoral special assistant. The mayor had no specific plans for using his new employee beyond delegating a portion of his work to him. Although his new role was vaguely defined, the ADAPTer assumed it with enthusiasm, searching for ways to make himself useful to the mayor. Within a short time he has established a reputation for being capable, responsible, and dedicated to the task of improving municipal government. The mayor has come to increasingly depend upon this ADAPTer's capacity to get things done, and has delegated numerous tasks to him: a review of the city's annual budget, initial interviewing of job seekers, preparation of a municipal reorganization plan, supervision of rennovation of city offices, and a study of the feasibility of mechanizing the city's record keeping system, etc. Recently the mayor remarked: "I don't have to check on ____, I know that he's doing something that needs doing." For his part, the ADAPTer sees much of his job as serving the people of the community in an ombudsman-like role. The previous mayor, it seems, had no assistant; when people called to complain or ask questions, they apparently received little response. Now each complaint is investigated, each call returned. According to the ADAPTer, there have been a number of favorable comments, including a few laudatory newspaper articles. This ADAPTer appears to have created several ways of adapting his administrative skills to problems facing his new boss.

A general observation can be made from this and other similar experiences, which will not be enumerated here: ADAPT participants who took jobs in the public sector frequently found ways to apply their skills and experience, whether or not their roles had been carefully delineated for them at the outset. But what kinds of techniques and at what levels of sophistication those techniques were applied at first, do vary with the degree of problem awareness and planning preceding the ADAPTer's arrival. The more precisely the local agency had isolated and defined the problems, the more sophisticated have been the techniques applied; the more diffuse and nebulous the problem setting, the greater the ADAPTer's reliance on general and less elaborate problem-solving methods. Those who have most clearly succeeded in adapting more sophisticated methods and techniques tend to have been those who sought applications of their skills in situations recognized by other members of their agency as problem areas.

Although adaptation of the more sophisticated forms of analytic and problem-solving techniques seems to require prior awareness of the need for such techniques on the part of municipal employers, general problem-solving aptitudes seem adaptable to a wide range of tasks. Even in situations where tasks are imprecisely defined, ADAPT participants who have been sensitive to the needs of their supervisors and their agencies have been able to carve out roles for themselves that draw on prior experience. In areas less well-defined the ADAPTers with some general management experience apparently have a slight edge over those more oriented toward "hard engineering", the latter being persons whose work was in design production and quality control. However, the edge is only slight and should not be exaggerated; very few "hard engineering" jobs are available in municipal agencies and many ADAPTers with "hard" backgrounds are doing satisfactorily in "soft" jobs.

Adaptation Through Private Contracting Agencies

Several ADAPT participants have tried an alternative to public service employment that will permit them to adapt their technical and managerial expertise to problems facing public agencies. They are employed in private agencies that contract to federal, state, and local government agencies. Most of these ADAPTers have founded new organizations; a few have joined established firms.

Though few in number the experience of ADAPTers taking this employment route is worth study because several proposals for a national policy on "economic conversion" call for formation of just such contracting enterprises on a localized basis the country over. Legislation initiated by, and now before the Congress, as well as the recent Presidential Message on Technology, calls for increased assistance to organizations of this type. The experiences of these few ADAPT participants thus provides a preview of what may become a more widely imitated device for redeploying technical manpower.

1. NEW CONTRACTING ORGANIZATIONS. Fourteen ADAPT participants had formed the Alpha Institute about six months prior to the August orientation. Alpha is a not-for-profit, tax exempt organization established to bring the unemployed and the underemployed technical and managerial talent available in a

South Central metropolitan region centered on Huntsville to bear on various public service projects under grants and contracts from government agencies. Since the inception of the organization, the group has performed--or proposed to perform--ten major projects, primarily in the field of economic development and professional manpower planning. Studies already completed or in progress include:

-- a marked profile study for the Huntsville area, specifying which new industries might be developed;

-- a statistical study of the breadth and nature of unemployment in the Huntsville area; and

-- as part of a government organization study commission, development of a design for a management information system for a CDA.

Among the numerous projects proposed by the Alpha Institute, the following are noteworthy:

-- A Job Opportunities Survey for the Department of Labor to identify and describe current and projected job opportunities nationally for aerospace/defense engineers, scientists, and technicians in the field of environmental control and protection; and

-- An AEP audio/visual presentation to assist the National League of Cities in placing the 400 ex-aerospace professionals in local government mid-management positions.

Both proposals emerged from the experience of Alpha Institute members in the AEP. Other proposals include:

-- provision of technical assistance resources to minority-owned businesses and entrepeneurs under the Economic Development Act; and

-- creation of a regional economic development committee

> that would address such issues as local production deficiencies as opportunities for developing indigenous industry, and means for identifying and maintaining the size and character of available professional and technical manpower resources.

The volume effort expended by this group of ADAPTers before, during and after the orientation at MIT demonstrates their commitment to adaptation of their knowledge and experience to public sector problems. Also, the character of their proposals reflects some degree of sophistication. But as of March 1972--about one year after the organization's formal creation--Alpha Institute had still to consumate its initial contract activity. Although several proposals were pending, ADAPTers at Alpha Institute reported that no work had been received from potential clients. Several kinds of problems appear to have ill-fated several project ideas.

The proposal for an economic development technical assistance center, for example, had been informally reviewed by small-business experts at a nearby university, who said they could offer no suggestions for improvement. The proposal, according to Alpha officials, had received tentative approval from the regional office of the Department of Labor. The Alpha officials later learned that an objection had been raised in Washington and by officials in the recently designated regional office over the fact that Alpha was "not a university." The proposal is still pending. One of the universities contacted as a potential auspicies by the

ADAPT group has since submitted a similar proposal. The proposal omitted the Alpha Institute.

Creation of an economic development committee apparently stumbled over the central Alpha figure's inability to tolerate what he believed to be ineffectual, obstructionist behavior of local government officials. Indeed, the acrimonious encounters between Alpha and public officials may help to explain the group's unrealized potential. Rough-shod hurdling of human obstacles may not only be a result of frustration, but a source of resistance as well.

Although the Alpha Institute has had limited success thus far, it is further developed than a similar group recently formed in New England.

The Massachusetts ADAPT Institute is about to incorporate as a non-profit organization by a group of persons who completed the ADAPT orientation at MIT. The Massachusetts ADAPT Institute, Incorporated, proposes to provide a means of maintaining contact among members for mutual aid; to provide assistance to graduates of subsequent reorientation programs; and to develop consulting work in the variety of fields in which members are competent. The active membership of "Mass ADAPT, Inc.", as it is familiarly known, includes both those persons at work in public and private positions and those still seeking work.

The group maintains current resumes of virtually all the AEP participants from Massachusetts and hopes to expedite job development. A core group of the incorporators maintains contact with several state agencies coordinating EEA and State manpower activities in order to expedite placement processes. Although no group contracts have been consummated as of this writing, several members have secured personal services consulting positions in industry and government.

A few ADAPTers are active in the Self-Help Action Group (SHAG) centered in Nashua, New Hampshire. But SHAG is not closely identified with the ADAPT orientation or the AEP as a whole, nor has the group advanced as far in terms of formal incorporation.

The effectiveness of the new contracting organizations as a vehicle for redeploying technical manpower to better serve the needs of urban society cannot be determined until further experience is developed. This is, in itself, a finding of some consequence: the groups are required to endure protracted start-up periods before substantive, and remunerative, work can be developed. Group resources must be inventoried and contracts made with potential clients before professional practice is resumed: both activities are time-consuming. In each case, state and local governments have been encouraging but are, apparently, not often in a position to provide immediate contracting opportunities.

2. ESTABLISHED CONTRACTING ORGANIZATIONS. Rather than creating a new contracting organization, a few ADAPTers attempted to

join contractors with an established public agency clientele. Most were unsuccessful in obtaining this type of employment in the public sector. The Project ADAPT staff, however, has identified one exception: an ADAPTer is employed by a general engineering services subsidiary to a large aerospace conglomerate. This subsidiary operates the computer center for the Transportation Systems Center (TSC) of the U.S. Department of Transportation, and conducts special engineering services for the Center on demand. The ADAPTer is assigned to TSC on a full-time basis and, although classified as employed in the private sector, he is contributing his professional services to improving the nation's transportation technology.

Specifically, the ADAPTer has been assigned sole responsibility for development of an "overall systems survey" of the freight loss and damage problems of U.S. railroads, "to identify the specific problems and relate them to possible engineering solutions." The object of the study is to recommend to the Federal Railroad Administration which engineering approaches to solving the problem are worthy of further exploration and Federal support. He reports that he has been able to adapt his prior experience in aerospace to his new job:

> "My work...involved one-of-a-kind projects with no prehistory. Do enough of those and you build insights into two things: the technology involved and the involvement of many different people. What I'm doing now is taking those insignts into something else. I'm learning a hell of a lot."

Although the substantive problem differs from problems he had been assigned in aerospace, the general approach to problem definition appears to carry over.

This single instance of adaptation through employment in an established contracting agency illuminates some important differences and similarities in modes of professional re-employment which influence potential skills adaptation. The established contracting agency has apparently succeeded in securing a variety of tasks with a single client agency; in fact, it appears to function as an extension of the TSC staff. In contrast, the newly formed contracting agencies (Alpha and Mass ADAPT) have tried to identify single projects with several different agencies. In the case of either the established private consulting firm or the new non-profit consulting organizations, the tasks and objectives of the privately employed ADAPTer's project assignment are usually formalized in contract specifications. This arrangement permits the professional to devote undivided attention to the problem in question until research and analysis have been completed, with relatively little need for close agency supervision, since policy objectives and criteria for evaluation have been spelled out in advance by the client who has identified a specific need. But this strong task-focus and professional freedom have an offsetting disadvantage: it is not as easy to modify the direction of a closely-specified contracted activity that is already underway as it is to redirect the activities of professionals employed by a sponsoring agency.

The more stable relationship of an organization under contract to one major public sector client seems preferable to the strategy of contracting with several different clients on a project-by-project basis. Whether the ADAPTers who have begun their own contracting agencies have pursued the latter approach by design or of necessity is not clear. Evidence indicates that they have attempted to develop a special competence in a few areas in order to avoid becoming dependent upon a single client, thus liable to suffer again that which they endured in recent space cut-backs. Whether their approach will ultimately prove viable cannot be known at this time; additional experience with that mode of adaptation should yield some tentative answers to the question.

Adaptation Through Non-Work-Related Activities

ADAPT participants--both those employed and those still seeking work--have also reported they have found non-work-related means of adapting their experience in aerospace and defense organizations to urban-related problems through involvement in civic affairs and professional organization activities.

Twenty-eight percent of those who responded to the February survey reported that they had changed their involvement in civic affairs as a result of their experience in Project ADAPT. Almost all of them indicated--in general terms--that their involvement in civic affairs had increased. Most said they had begun to attend public meetings and to take the initiative in learning more about local affairs. One plans to run for local office; another joined a community council and now participates on one of its task forces. One ADAPTer volunteered to serve on the board of an intermunicipal airport authority. Another was already a town official --a member of the local planning board. He claims that the orientation increased both his interest in the board and his sensitivity to the problems it faces. Yet another volunteered to work in a non-profit organization that collects and disseminates information and educational material on public affairs. Another has begun to participate on radio round tables on issues of local impact. One aerospace engineer summed it up nicely: "I realized that engineers must make themselves heard if they are going to get something accomplished."

Several ADAPTers indicated that they believed increased participation in civic affairs would enhance the probability of their obtaining employment in the public sector. One ADAPTer, for example, reported that he has been able to obtain a job with the mayor of his community primarily because of the orientation experience. A summer colleague indicated that he had used information obtained during ADAPT to start a new self-help employment group. He said that ADAPT gave him a new set of objectives and concepts.

Another said that he had joined and become active in the [locally] dominant political party because he felt it might lead to public service employment. ADAPT, it seems, had given him a "small peek at the 'real world'". One participant felt ADAPT had given him an indication of "who to get to know in order to find work."

In a few instances, civic involvement has, in fact, led to employment in municipal agencies. Whether or not new initiatives in civic affairs will actually lead to employment in a substantial number of cases, some evidence suggests that should this occur, the involvement in civic affairs will contribute to adaptation. All those ADAPTers who were employed as of mid-February were asked to assess their previous experience in civic affairs, in terms of its usefulness to them in their present jobs. The answers of those who responded to the question are summarized in Table F below.

TABLE F: USEFULLNESS OF PREVIOUS EXPERIENCE IN CIVIC AFFAIRS TO PRESENT JOB, BY SECTOR OF EMPLOYMENT

Amount of Usefullness	Employed in Public Sector		Employed in Private Sector	
	#	%	#	%
Little or no usefullness	10	41	19	73
At least some usefullness	14	59	7	27
TOTALS	24	100	26	100

[Chi Square = 5.0; P≤ .05]

Clearly, not all those now employed in the public sector found their prior experience in civic affairs to have been useful. But a majority of those engaged in public service jobs have found their experience at least somewhat helpful. Compared to those who are now employed in the private sector, civic affairs experience seems to have been more relevant to ADAPTers now in public sector jobs.

Little adaptation through activity in professional organizations appears to have occurred. Most reported changes in professional activity subsequent to the orientation were reduced involvement in or commitment to professional organizations. Some of the ADAPTers reported a decrease in interest due to the expense of continued involvement; this was reported, for the most part, by those still unemployed. Other ADAPTers indicated they had given up the hope that continued involvement would lead to employment. Still others have dropped out because time commitments to their new jobs do not permit so much outside activity.

Nevertheless, a few ADAPTers have found ways of using professional ties to locate new areas to which their skills could be applied. Most new profession-oriented activities are directed toward finding employment for displaced aerospace personnel. At least two ADAPTers have volunteered to work on a skill-conversion study conducted by the National Society of Professional Engineers and sponsored by the U.S. Department of Labor. One ADAPT participant volunteered to serve as a counselor to AIAA employment workshops. Other ADAPTers have joined more aggressive professional groups in pursuit of economic aims. One such organization, the Association of Technical Professionals, aims to become an active [political] voice for professionals in technical fields. Leaders of this organization have initiated a lobbying effort for "transportable" insurance and retirement plans. They have attempted to shape their membership into an effective special interest group to acquire political influence among state and local public officials.

Several ADAPT participants have joined professional groups in the field of urban affairs. At least one has taken membership in the International City Management Association. Another has joined both the American Society of Planning Officials and the Urban Land Institute. Others reported they had both joined such organizations and attended professional society functions to get new ideas and additional background information. One respondent said that he has utilized new professional ties to explore engineering opportunities in the fields of transportation and environmental protection.

Just as importantly, a small number of ADAPT participants have undertaken the task of influencing their colleagues in the engineering profession. One ADAPTer had already begun to deliver lectures on urban problems at professional society meetings. He claims that the orientation experience permits him to speak with "greater authority". Another ADAPT participant, one who has attained some prominence in professional circles in aerospace, feels that engineers are inadequately trained to the tasks of making their constructive influence felt in public affairs. Since the August orientation he has pursuaded a major engineering school to alter course requirements in its professional engineering education curriculum to include a series of humanities courses. The orientation, he asserts, simply enhanced his conviction that such change is needed. Thus ADAPT participants have begun to use their professional associations to find ways of adapting technology to public needs.

VI. EMPLOYMENT OBJECTIVES

A primary aim of the Aerospace Employment Project was to demonstrate the feasibility of redeploying unemployed aerospace and defense personnel into state and local government. Its basic function was to offset the normal labor market operations that seem to inhibit this redeployment. The structure of the AEP reflects its designers' understanding of labor market barriers, the most important being inadequate information, another being a geographical mismatch between available manpower and available jobs. Thus the AEP can be assessed in terms of its assumptions about what the barriers are, and in terms of its ability to overcome those barriers for a cadre of unemployed aerospace and defense personnel.

Design of the Aerospace Employment Project

Unemployed aerospace and defense personnel were looking for jobs, while many jobs remained unfilled in agencies of state and local government.* The designers of the AEP apparently believed that an important barrier between job seekers and job openings could be reduced if the labor market information available to the two groups could be organized and improved. Thus the structure of the AEP can be viewed as a multi-component information network.

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* See proposal of April 17, 1971, from NLC/USCM to the Department of Labor and the Department of Housing and Urban Development: "A Proposal to Develop a Network to Place Unemployed Aerospace Professionals in State and Local Governments."

The project is also designed to overcome a second presumed barrier: high geographical concentration of unemployed manpower, relative to the dispersion of available jobs in state and local government. Therefore, in order to qualify for the AEP, applicants were required (a) to indicate they were willing to relocate, and (b) to establish their eligibility for federal assistance under the Technology Mobilization and Re-employment Program (TMRP). Under this program, unemployed professionals from aerospace and defense could receive funds to defray the travel costs for job interviews outside commuting distance. They could also obtain funds to support moving costs, if they accepted jobs that required them to relocate.

The designers of AEP provided a training stipend of $1000 for each AEP participant placed in a public agency. They realized that state and local government agencies have little money to support manpower training, and they assumed that prospective employers would be more willing to hire professionals from aerospace if such training funds were made available. They may also have believed that the stipend would provide some encouragement to AEP participants who were uncertain they could adapt themselves to specific tasks of a new job in the public sector.

AEP was not designed to affect the political and patronage considerations occasionally present in government hiring. Nor was it initially designed to increase the ability of cities to hire needed manpower. However, with the passage of the Emergency Employment Act of 1971, substantial sums of money were made available to local governments for hiring the unemployed. That the legislation was passed and appropriations made available during August of 1971 (at the time the ADAPT orientation was underway) promised a fortuitous increase in potential demand for ADAPT participants. However, one section of the legislation provided that recipients of EEA jobs must be residents of the jurisdiction authorized to spend EEA funds. If assumptions about geographical mismatches of available manpower to available jobs were correct, the EEA "windfall" promised fewer benefits for AEP participants than had at first been anticipated. The provision was later relaxed to permit exceptions to the residency rule in the case of unemployed aerospace and defense professionals. Thus by March of 1972, the AEP was designed to build upon two major federal programs that increased incentives for overcoming barriers in the labor market.

Employment Outcomes

Gross employment statistics for AEP participants at the end of April 1972, indicate that the Project demonstrated the feasibility of redeploying unemployed aerospace and defense personnel into state and local government jobs. Out of 373 AEP enrollees (both East and West contingents), 288 were employed by April 28. Of the employed group, approximately 65% (186 AEP participants) held public service positions in state and local government.

Table G indicates that public service placements were higher in the West. At face value, the data suggest that the AEP was more successful in overcoming market blockages in that part of the country. However, the data in Table G may understate actual employment outcomes--both in the public service and the private sector for both East and West groups. As noted earlier in this report, a mid-February sample survey of ADAPT (East Coast) participants led to the discovery that not all ADAPT participants had reported new found employment to the NLC/USCM. A late February summary for ADAPT participants from the NLC/USCM (that which most nearly coincided with ADAPT's own survey) reported a lower percentage of public sector placements than did the Project ADAPT sample. The ADAPT staff initially concluded that its sample was biased, but a careful examination of the data identified over a dozen specific cases of public service employment that had not yet been reported to NLC/USCM. If late reporting, rather than failure

TABLE G: SUMMARY OF AEP EMPLOYMENT OUTCOMES AS OF APRIL 28, 1972*

	AEP GEOGRAPHICAL SECTIONS					
SECTOR OF EMPLOYMENT	ADAPT (East) Participants		AOP (West) Participants		SECTOR TOTALS	
	#	%	#	%	#	%
Public Service Employment	76	(59)	110	(69)	186	(65)
Private Sector Employment	53	(41)	49	(31)	102	(35)
SECTIONAL TOTALS	129	(100)	159	(100)	288	(100)

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* Data taken from the NLC/USCM Placement Information Summary of April 28, 1972.

to report, produced the disparity, the April 28 figures from NLC/USCM should be quite complete and accurate. Project ADAPT staff have little reason to believe that such a large percentage difference in employment outcome statistics is attributable to the failure of ADAPT participants to report changes in employment status. However, if this were the case, the employment statistics in Table G should be regarded as a conservative, or low, estimate. The larger issue is whether the data are sufficiently accurate to determine whether the AEP was successful in overcoming labor market blockages to the transfer of unemployed professional manpower to employment in state and local government.

Relative Effectiveness of the AEP

Data on employment outcomes of the AEP indicate that it succeeded in assisting unemployed aerospace and defense professionals in finding public service employment. The data do not, in themselves, indicate that the project was more effective than other means used by this group of displaced professionals to find reemployment in the public sector. Comparable employment data for a similar group of professionals who did not participate in the AEP is needed to make such a determination.

The Project ADAPT staff located two sources of data on persons roughly comparable to those participating in the AEP. The first source is a dissertation study conducted by Tom Allen of the MIT Sloan School of Management, under the direction of Professor Charles Meyers. Allen documents the experience of approximately 1,500 unemployed aerospace engineers and their use of the labor market information systems available in Southern California. His analysis reveals that, as of January 1972, approximately 11% of those engineers laid off and re-employed in the last two years found employment in the public sector. These data suggest that the AEP was about five times more effective than information systems available to engineers in Southern California. It should be noted that Allen's definition of "government," which includes federal aerospace and defense agencies, makes no distinction between state, local and federal government employment. Nor does it distinguish between professional and clerical levels of employment. If Allen's figures were disaggregated, the AEP employment outcomes for public service employment in state and local government might appear, by comparison, even more significant.

Several cautions are necessary in this comparison. The obvious one is that Allen's data are restricted entirely to the experience of engineers in Southern California. AEP participants were selected from areas of high unemployment throughout the country; the public service jobs they acquired were even more geographically dispersed. The experience of aerospace engineers in Southern California may be significantly different from that of engineers in other parts of the country. Second, Allen's sample is composed entirely of engineers (as defined by their former firms), whereas about 25% of the participants in Project ADAPT reported having recent management experience. Some ADAPT participants had management degrees (18%). If the backgrounds of AEP participants who attended the Berkeley orientation are similar to those who attended the MIT orientation, then it may be inferred that the AEP group was composed of a disproportionately large number of individuals with management background and experience--a result of the screening of AEP applicants to find participants from the "soft side" of aerospace. Finally, Allen's sample includes persons who used several different kinds of labor market information systems, including the AEP at Berkeley, LINCS, California HRD, and other federal programs.

Rough data on employment outcomes of the TMRP itself provide a second comparison group. After nine months' experience with the program, Labor Department officials estimate that public service re-employment of TMRP participants ranges between 10% and 15%. This result seems to corroborate the comparison of AEP results to Allen's findings: in the absence of the AEP, displaced aerospace and defense personnel are about one-fifth as likely to transfer to public service employment. As with Allen's data, TMRP employment data do not distinguish between re-employment in state, local and federal agencies. So at first appearance, the five to one transfer rate for AEP, compared to TMRP, would appear to understate the contribution of AEP.

However, problems of comparibility between AEP participants and TMRP participants are severe. Approximately 9% of TMRP participants were laid off from government service. About 35% of TMRP participants were technicians; about 1% of Project ADAPT participants were technicians. Only 5% of the TMRP group were scientists, compared to ADAPT's 20% scientists. From the data available to Project staff at the writing of this report, it is not possible to determine whether TMRP's aggregate definition of public service employment is sufficiently offset by differences in backgrounds of the two groups.

However, gross differences in public service employment outcomes for the two comparison groups seem sufficiently great to establish the AEP's achievement in overcoming barriers blocking the flow of displaced aerospace and defense personnel into employment in state and local government. The difference in transfer rates would appear so substantial as to obviate more detailed analysis of problems of data interpretation and comparability. If anything, more detailed analysis would demonstrate an even greater degree of success for the AEP.

Barriers to Transfer

Over all, the AEP may be deemed effective in having overcome certain barriers to re-employment, but which barriers appear to have been most important? And did the design of the AEP anticipate those barriers?

1. EFFECTIVE DEMAND FOR PROFESSIONAL MANPOWER. The AEP has

demonstrated that state and local governments can use the skills of displaced aerospace/defense professionals. But some evidence suggests that designers of the AEP may have over estimated the strength of effective, economic demand for such personnel (the distinction here is between what state and local agencies want or need in professional manpower and what they can actually pay for). The primary justification for this assertion is found in the proportion of EEA jobs to total public service employment. About 45%--nearly half--of ADAPT's public service placements were in EEA positions. It would be irresponsible to conclude that the public sector placement ratio of ADAPT participants would not have been as high in the absence of the EEA. Agency administrations may have viewed the EEA as a windfall and may have diverted an equal amount from already available funds to other purposes. But the striking percentage of EEA positions among public sector placements should alert municipal manpower planners to the possibility that effective demand may have been less than anticipated.

Another disquieting finding relating to effective demand is the disparity between public service salary levels and salary levels of ADAPT participants prior to lay off. ADAPT participants reported an average annual salary of about $17,000 prior to industry lay off. The average annual salary of ADAPT participants placed in the public sector is about $12,000. This constitutes a reduction in annual salary of approximately 30%--a sizeable decrease. Applicants to the AEP had to be willing to accept a reduction in annual salary before they would be accepted as participants, but the central issue is whether the designers of the AEP anticipated that the effective demand--as measured by annual salary levels--would be as low as it turned out to be. NLC/USCM staff members assigned to the AEP are in a better position to make this determination than is the Project ADAPT staff.

2. GEOGRAPHICAL MISMATCH BETWEEN MANPOWER AND JOBS. Survey sample data from ADAPT participants indicate that less than half (41%) of those who secured public service employment had to relocate to accept their new jobs. This indicates that the assumption of a geographical mismatch between available public service jobs and displaced aerospace/defense technical manpower is essentially correct. However, more than half of the ADAPT participants obtained public service employment within commuting distance of their then-current residences. Relaxation of the EEA's strict residency requirements may account for this. Also, ADAPT participants may have found themselves willing to accept a lower annual salary in order not to relocate.

To the extent that relocation was required, the AEP appears to have profited from its early judgment to require eligibility for TMRP funds of all participants. Of those eligible for TMRP relocation assistance, nearly half (47%) used TMRP funds to relocate for a public service job. One third of those who accepted public service positions in another region of the country relocated at the expense of their new employers. Only 20% of the group that relocated to public service jobs used other funds to defray costs of moving.

Association Between Background Variables and Employment Outcomes

Were ADAPT participants with certain backgrounds more successful in moving into public service jobs than others? This section examines the statistical association between employment outcomes and six background variables: state of residence, age, length of unemployment prior to ADAPT participation, educational experience, professional experience, and civic and professional organization experience. For purposes of analysis, ADAPT participants were divided into the three groups reflecting employment status as of March 31 (32 weeks after the group left MIT), as reported by the NLC/USCM:

--Public sector employed 54 persons
--Private sector employed 36 persons
--Unemployed, 81 persons
TOTAL 171 persons

Of the 196 who were accepted for the ADAPT program, 25 were not included in the analysis. Eleven of those 25 dropped out or never attended; the remaining 14--who had participated in the program--reported full time employment on a mid-February survey mailed out from MIT's Project ADAPT (but at that time were not reported employed by the NLC/USCM). Therefore, the unemployed group of 81 persons probably contains people who are employed either part or full time, but who have not reported their employment to either MIT Project ADAPT or the NLC/USCM.

An underlying assumption of the AEP was that the transition from the aerospace to municipal employment market could be most easily accomplished by personnel from the "soft side of aerospace," persons whose original training might have been technical but whose recent experience had been in management, budgeting, program analysis, technical writing or marketing. In addition, general labor market theory suggests that older workers and those persons with less education would have the most difficulty finding re-employment.

Two conclusions emerge from the analysis of the association of various background variables. First, there are patterns of weak association which, though not statistically significant, provide support for the general expectations of employment outcomes described above. Second, there is a strong and statistically significant association between one background variable--the length of unemployment prior to ADAPT participation--and employment status after Project ADAPT. A summary of these association patterns follows and complete cross tabulations may be found in Appendix Exhibit C. The summary will compare the percentage of placement in the three categories (public employment, private employment, and unemployed) along each background variable to the marginal or 'average' rates of placement for the group as a whole. These marginal rates were 31.6% in public sector employment, 21.1% in private sector and 47.4% continue unemployed (as of March 31).

1. AGE. Older (over 45 years) and younger (under 35) workers had approximately the same unemployment rates, whereas middle-aged personnel (36-45) had an unemployment rate about 11% below average. Middle-aged workers had an average rate of employment in the public sector and an 11% higher than average re-employment in the public sector. Younger workers had an 8% lower than average employment rate in the public sector and 3% higher than average participation rate in the private sector. Older workers seem to have benefited more from the program, having, as expected, a very low re-employment rate in the private sector (8% below average), but a slightly higher than average employment rate in the public sector.

2. FIELD OF HIGHEST DEGREE. Persons with management degrees had the highest rates of re-employment and tended to transfer predominantly to public sector employment. Persons with science degrees had less success in finding employment than those with engineering degrees.

3. FIELD OF PROFESSIONAL EXPERIENCE. To some extent ADAPT

personnel from the "soft side" of aerospace were most often able to make the transition to middle-management municipal employment. All of the newly-employed ADAPT personnel whose experiences had been in finance and management information systems were employed in the public sector. However, certain "soft side" persons such as marketing specialists and proposal writers did not do exceptionally well in the public sector, perhaps because they lacked familiarity with the precise terminology and know-how necessary for this operation in the public sector. Persons in process management, software finance and, to a lesser extent, in sales engineering logistics, had above average rates of public employment. Hardware, software, marketing, and testing had above average rates in the private sector.

4. EDUCATION LEVEL ATTAINED. Two groups had the highest rate of unemployment relative to the avarage: those with no college degree and those persons with a bachelor's degree plus some additional credit but no advanced degree. ADAPTers with a master's degree (many in business administration or management) had the most success with re-employment, especially in the public sector. Personnel without a college degree had the lowest rate of re-employment in the private sector. Participants with doctoral degrees had slightly less than average rates of employment. Educational level seems to increase employment rates up to a point, and then further

education appears to have diminishing return. Recruiters apparently viewed persons with extensive education as being "overspecialized," too committed to a speciality, "overqualified" or "over-priced."

5. NUMBER OF PERSONS SUPERVISED. The mid-range supervisors (responsible for 11-50 persons) had the lowest unemployment rates and the highest participation rates in public employment in contrast to the highest level (over 50 persons) and lowest level (fewer than 10) supervisors.

6. STATE OF RESIDENCE. Persons from different geographic regions in the Nation had very much the same experience with public employment. Rate differences can be largely attributed to employment experience in the private sector, with Florida having a higher percentage and Alabama a lower percentage of re-employment in the private sector.

7. LENGTH OF UNEMPLOYMENT PRIOR TO ADAPT. ADAPT participants' length of unemployment prior to August of 1971 and their current employment status showed the most direct and significant association of all variables examined.* The association is summarized by Chart

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* The Chi Square Statistic for this cross tabulation is significant at .013.

and Table 6 in Appendix Exhibit C. Public employment drops monotonically with increased length of unemployment. Continued unemployment rises monotonically with a greater duration of previous unemployment. Private employment varies to a less degree, but also decreases slightly with a history of longer unemployment. In short, the longer an ADAPT participant had been unemployed prior to the orientation, the less likely he was to find a job afterward.

Several factors might explain this association. But in the absence of little more than impressionistic supporting evidence, they should be regarded as speculative only:

--Those with longest histories of unemployment may have been considered marginally productive by their private sector employers and thus were among the first to be laid off.

--The experience of being unemployed may have reinforced itself over time: extended unemployment may have undermined an individual's self confidence and diminished the effectiveness of his job search and self presentation.

One ADAPT participant obtained a position as a job developer for the EEA in a metropolitan area. His experience with a large number of unemployed aerospace professionals corroborates the second argument. Another ADAPTer directs an EEA consortium. He has observed and reported to the ADAPT staff both of the above phenomena in his work with displaced aerospace professionals in his ares.

8. PREVIOUS SALARY. There seems to be an erratic relation between past salary and current employment with a mid-range group ($1200 - $1600 per month) having higher re-employment rates. The

low salary groups ($600 - $1000) per month) were few in number and were most easily absorbed into public sector employment.

9. LEVEL OF RESPONSIBILITY IN LAST INDUSTRY POSITION. Managers had slightly higher employment rates in the public sector than did engineers. Operative engineers had higher percentage of public employment as compared to senior engineers. However, engineering managers had greater success than policy managers in finding re-employment in the private sector. Senior engineers, likewise, had greater success in the private sector than did operative engineers.

VII. REVIEW OF PROJECT FINDINGS AND THEIR IMPLICATIONS

Introduction

Project ADAPT pursued several objectives simultaneously and identified several dimensions for measuring progress toward each of those objectives. This evaluation strategy is appropriate to a program as complex as ADAPT, which was designed to serve the needs of several constituencies: aerospace/defense professionals in search of new careers; governments in search of seasoned technical and managerial professionals; public interest groups who wish to enhance the capabilities of public enterprises; institutions of higher education who accept responsibility for meeting the needs of professionals in search of new careers; and, over all, departments of the federal government whose purpose is to rationalize the deployment of the nation's professional workforce to the service of the nation's urban population.

The central chapters of this report will be closely read by decision-makers in each of the constituencies identified above. For purposes of wider circulation and consideration, this chapter will review findings established earlier in the report, without detailing research methods or specific instances. This section will also articulate some implications of these findings for future actions. Readers of the entire report are invited to join this venture; this is one reason for the extensive detail provided in the bulk of this report.

Building Local Government Management Capacity

By such "rough and ready" measures as placement ratios and performance assessments, the capacity building objectives of HUD/Model Cities were well-served by ADAPT. These are reported earlier in the text, as are second-order effects such as the cognitive and attitudinal impacts of the orientation on persons now in the public service. All of these measures show substantial satisfaction of project objectives.

Findings also show that there are no background characteristics (such as age, education, or industrial experience) which "predict" which types of participants can contribute "more"--leaving this undefined for the moment--to the effectiveness of public agencies. Rather, the essential contributor to capacity building success appears to be the degree to which an agency is prepared to utilize advanced managerial and engineering techniques. To a far greater extent than was recognized at the outset of ADAPT, a local agency's ability to recruit such manpower is greatly influenced by its ability to specify its professional manpower needs. After recruitment, the agency that has well-developed task planning makes the best use of the abilities of the new employee, and does so _much_ earlier in that employee's tenure.

Thus, a clear implication for policy would be to assure sufficient time and budget for as much agency-focused and agency-centered manpower planning as possible. Two kinds of benefits would result from such forethought. The primary benefit would be enhanced and earlier capacity building. Three derivative benefits of that primary gain would be: (1) facilitation of the tasks of recruiting and selecting program participants (the recruiters' having the advantage of working from specific manpower requirement schedules); (2) assistance in curriculum planning (permitting more accurate targeting of instructional efforts); and (3) alleviation of the uncertainty over future jobs (a problem which most ADAPT participants found distracting at best and debilitating at worst). A secondary benefit, accruing mostly to project sponsors, would be the determining of the extent to which the market demand for adapted professionals has been saturated by the placements of the pilot program, and an estimation of the continuing need for such manpower in the near-term future.

It is not possible to outline a municipal manpower planning program here. It should be sufficient, however, to recommend a careful examination of existing municipal manpower recruiting, selection and promoting practices. Adequate incentives could then be devised for increasing satisfaction on both the supply and demand side of this labor market transaction.

Adaptation of Aerospace Skills to Urban Needs

Cases of successful adaptation of aerospace skills and experience to urban needs are now numerous, both within and without the AEP. But the experience is geographically dispersed and so varied in form that an overview of the national experience would be timely and helpful, especially to planners of future programs. In the private sector, giant aerospace and defense industry conglomerates--as well as "one-man operations" with almost no capital--are not adapting to public sector markets, both governmental and commercial. Similarly, governmental and other non-profit entities are actively pursuing adaptation of aerospace/defense personnel's skills and experience to their pressing needs. The ADAPT staff, however, knows of no authoritative and systematic compilation of this experience. A survey of these experiences--within and without AEP--would be a useful guide for individual and corporate planning, and would certainly be timely. The current national Administration's recent message on technology suggests a considerable federal interest in such an undertaking. Individual states--notably California--have already begun, as have certain public interest groups like Public Technology, Incorporated, created with the active cooperation of NASA and the ICMA. A survey would provide one foundation for rational planning for economic conversion. And the AEP has now logged considerable experience that would inform such a task.

Again, this is not the place to detail a program for such a comprehensive survey of the adaptation of new technological resources to urban needs. But it is clear that such a survey would have to include specific information about the economic demand (as opposed to imprecise statements of need) for skills, experience, processes and products to be derived from technological adaptation--both at the level of the organization and at the level of the individual. (The distinction to be emphasized is the potential contributions of organizations as contrasted with the potential contributions of individual professionals).

A beginning has been made with AEP and this monentum should be sustained.

Employment Outcomes

The 70% placement results of the AEP is a credible accomplishment, but more significant is that 60% of the AEP participants were placed in the public sector: this is a large diversion of professional manpower that would not have occurred without the AEP.

Employment outcomes under AEP are conditioned, if not dominated, by the fortuitous coincidence of the Emergency Employment Act of 1971 (EEA). EEA positions make up 45% of ADAPT's public sector placements. The impact of EEA placements on AEP placement results can be interpreted in either of two ways. On the one hand, EEA may have provided many ADAPT participants with useful work in agencies that could not have afforded the $12,000 per annum available under EEA. On the other hand, two other factors may have been more decisive: 1) In their haste to comply with the EEA processing requirements, many agencies were so preoccupied that they gave little attention to the enormous job development efforts of the AEP's

Washington staff at the NLC/USCM which occurred at the same point in time. Whereas AEP offered agencies job-training stipends of up to $1,000 per position, EEA was offering $12,000 salary subsidies; thus agencies devoted more attention to EEA. 2) EEA, in its initial stages, exacted a residency requirement which excluded most ADAPTers from EEA jobs. Fortunately, the timely intervention of the AEP Washington staff resulted in a relaxation of this requirement.

Two factors worked against the placement of ADAPTers in EEA positions. First, the EEA's initial residency requirement was relaxed only after many jobs had been denied to able participants in ADAPT. Second, ADAPTers viewed the EEA positions as temporary, and were duly cautious about accepting them, especially if a move was required. The respondents to ADAPT surveys and interviews were very clear on this matter.

In sum, the placement rate was subject to a large factor--the EEA--that was beyond the control of the AEP planners. Any generalizations from this placement result for ADAPT must be tentative. Also, if the final outcomes of programs fashioned after AEP are found to be similarly vulnerable to exogenous factors, care must be taken not to raise the expectations of participants unduly.

Components of AEP

RECRUITMENT AND SELECTION. The body of this report records few statistically significant associations between background attributes and either placement or successful performance once on the job, with one exception: persons with management experience tended to achieve on-the-job success sooner than did those without it. This general finding suggests that recruitment methods and selection criteria can be considerably foreshortened with little loss to overall placement effectiveness of the program. Coupled with the finding recorded earlier in this section under Building Local Government Management Capacity, this observation provides encouragement for less time-consuming recruitment and selection procedures.

ORIENTATION. Both the Interim and Final Reports indicate that no single component of the month-long orientation was either universally favored or disfavored. The Final Report also reveals that no single component can be classified as helpful or not helpful to those ADAPTers now at work in the public sector. This finding implies that, if backgrounds of the participants and the positions for which they are slated remain heterogeneous, then the future educational fare--in terms of orientation procedures and instructional formats--should be varied as well.

The substance of the orientation is a separate matter. The ADAPT orientation placed great emphasis on sensitization to the politics of local government decision-making and the managerial styles of municipal organization. The reports from ADAPTers now at work, and from their superiors, indicate the basic soundness of this approach. But both groups, especially the supervisors, recommended even greater emphasis on this substantial component in future orientations. Curriculum planners for future programs must provide at least as much political role-playing as occurred in the ADAPT orientation, and other sensitizing exercises as well. Even more "straight from the shoulder" political counseling may be required, utilizing the same resource as was employed in the ADAPT orientation: face-to-face discussion with active urban managers and operating agency heads.

As the Interim Report made clear, there was an undercurrent of frustration with orientation materials that were not specifically related to specific agency jobs. Generalities can be tedious to professionals whose previous careers dealt with the concrete and the specific. The planning changes suggested under Building Local Government Management Capacity would do much to resolve if not eliminate this frustration. Simply put, more accurate targeting of potential placements in response to public sector demands will result in a more sharply focused orientation.

JOB MATCHING. This element of the AEP proceeded under an apparent analogy with the national manpower pool that services the relatively well-defined manpower needs of the nation's aerospace and defense industry. That industry is characterized by widespread geographic mobility between and among positions that do not vary greatly from firm to firm. (Many ADAPTers facetiously referred to themselves as "space bums," equally at home with either Boeing in Seattle or Grumman on Long Island.) But municipal manpower recruitment--except for certain professions (like city planners or city managers)--is very much a local phenomenon, often idiosynchratic and even unintelligible to an outsider. With such great differences in character, it is not surprising, in hindsight, that job matching from a central location was inordinately time-consuming and costly. It is a tribute to the AEP Washington staff that so many effective matches were made.

This experience suggests that the difficult job matching and job development process should be decentralized as much as possible. To be sure, overall co-ordination is required; there are enough satisfactory remote placements to justify this. But a review of placement patterns reveals that there is a readily discerned tendency to hire within states or within regions, particularly where public sector placements are at issue.

JOB DEVELOPMENT. Since this aspect of AEP was the component most removed from MIT, little of a concrete nature can be offered as either research findings or possible implications of those findings. The observations made under Building Local Government Management Capacity would have some application to this component of subsequent AEP's.

MONITORING AND EVALUATION. The overriding conclusion of this report's monitoring and evaluation effort is that only tentative assertions and cautious generalizations can be made at this time. This follows from two conditions imposed on the AEP from the outset: 1) the lack of a control group of persons similar to the ADAPT participants in every respect except participation in the orientation; and 2) insufficient time to adequately guage effective performance on the job. A single remedy would satisfy both needs: the monotoring of the entire AEP, and not just the post-orientation careers of the participants, should begin sooner and be continued longer. Monitoring should begin at the very outset of the recruitment and selection process, for only in this way can the viable control group be readily identified. Monitoring should continue for at least one year after placement. This is not a costly change, since very little if any additional staff would be required. The benefits in terms of better information for making future decisions would return many times the cost of the longitudinal studies.

Appendix

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EXHIBIT A:

DISCUSSION OF SURVEY METHOD AND ON-SITE INTERVIEW TECHNIQUES

The formal empirical bases for the final report's substantive content were: 1) a self-administered questionnaire mailed to every person who participated in Project ADAPT, and 2) a series of job-site interviews by ADAPT staff members of ADAPT participants now in public service. Also, incidental information reached MIT through informal contacts with NLC/USCM staff and from individual participants who spontaneously wrote, phoned or visited the ADAPT office.

Useble responses, i.e., responses which strictly followed the rather detailed instructions and which were returned in time for examination, coding, punching and machine analysis, numbered 98 (53% of total enrollment). Ultimately 22 (an additional 12% of enrollment) returned completed questionnaires too late for machine analysis. The rate of return is considered about average for a self-administered, mailed survey; however, when the close identity many participants declared with the AEP and its objectives is considered, the return is disappointing. On the other hand, the questionnaire was lengthy and required about an hour of undivided attention on the part of respondents; this contributed to the smaller return.

Fortunately for the analysis, the portion of the enrollment which did respond in time was representative of the enrollment as a whole, except for a slight over-representation of those employed and of "older" participants. The discrepancy between the sample characteristics and those of the group as a whole was not large enough to warrant correction by data manipulation.

On-site interviews, as expected, provided many details of personal experience which most ADAPTers were eager to share. Their supervisors were cooperative and a few expressed great interest in the details of the orientation and its evaluation. (One offered to review the next curriculum gratis; he also invited the ADAPT interviewer, an MIT graduate student, to join his department upon graduation!) The planning and interviewer-training sessions were well worth the effort. The interviewers followed a format (presented in Appendix Exhibit B.2.) which facilitated comparison analysis and aggregation at MIT.

All completed questionnaires and interview field reports are deposited under security at MIT as are all documents containing personal and career histories of the ADAPT participants.

EXHIBIT B:

SURVEY INSTRUMENTS

EXHIBIT B.1.:

MAILED QUESTIONNAIRE AND COVER LETTER

0

Department of Urban Studies and Planning

Room 7-338
Massachusetts
Institute
of Technology

Cambridge
Massachusetts
02139

Phone 617 864-6900

To: ADAPT Alumni

From: Francis T. Ventre

We need your help in the evaluation of Project ADAPT. While you were here, I told you that you are the judges of the program's effectiveness and that, later, you would be orienting us. The systematic compilation of your experiences since the ADAPT orientation is the main thrust of our evaluation effort; it is the only means we have of gauging which of your needs were met and which were not, which elements of the orientation worked or failed to work, and where improvements should be made in subsequent orientation programs.

The enclosed questionnaire is one element of that evaluation. This questionnaire has been pre-tested by a randomly selected group of ADAPT alumni who reported completion times ranging from 40 to 90 minutes, depending upon which sections applied to them. To find sections which apply to you, select the row from Column A that describes your situation on 1 February 1972; then complete only those sections marked X in that row.

A Participant's Situation	Questionnaire Sections					
	blue	white	green	yellow	red	pink
employed, full-time in an organization other than government	X	X	X	X		
employed, full-time in a governmental organization	X	X	X		X	
unemployed or employed part-time	X	X				X

Since your responses will influence later programs, please be deliberate; we're on project time and ask that you complete and return the questionnaire tonight or tomorrow at the latest. Your responses are being used to evaluate the program, not you as individuals. All responses will be coded here; data will be handled and reported in aggregated form only. Survey summaries will be sent to the ADAPTers who ask for them. The final project report, incorporative conclusions about program effectiveness will be forwarded to NLC in the late spring of 1972.

Thanks for your help.

enclosure

I. AEP Job Placement Experience Of All Those Attending The MIT Summer Orientation

1. At the request of the National League of Cities, several interviewers from state and local governments visited MIT during the August orientation. Were you interviewed by any of these officials?

   ☐ Yes
   ☐ No

2. Since you left MIT, have you been contacted by the National League of Cities by phone or mail about one or more specific job openings?

   ☐ Yes
   ☐ No

3. Has the National League of Cities, to your knowledge, contacted one or more agencies about employment opportunities for you?

   ☐ Yes
   ☐ No

4. In all, how many specific job openings have been referred to you through the National League of Cities' Aerospace Employment Project?

   ☐ None. SKIP TO SECTION II (white) AND CONTINUE.
   ☐ One
   ☐ Two
   ☐ Three
   ☐ More Than Three

Please characterize the job possibilities brought to your attention through the NLC Aerospace Employment Project. In general, were the jobs:

5. In the fields you wish to work in?

   ☐ Yes
   ☐ No

6. Of the level of responsibility to which you aspire?
   - ☐ No
   - ☐ Yes

7. Within your desired salary range?
   - ☐ Yes
   - ☐ No

8. In the geographical region where you prefer to locate?
   - ☐ No
   - ☐ Yes

IN ADDITION TO YOUR GENERAL IMPRESSIONS ABOUT AEP JOB REFERRALS, WE NEED INFORMATION ABOUT EACH INDIVIDUAL REFERRAL. YOU WILL FIND A SET OF QUESTIONS ON THE FOLLOWING PAGES FOR EACH AEP JOB REFERRAL. THE QUESTIONS ARE ORGANIZED SO THAT YOU CAN COMPLETE THE QUESTIONS FOR THE FIRST REFERRAL BEFORE GOING TO THE NEXT. THIS MEANS THAT IF, FOR EXAMPLE, YOU HAVE RECEIVED TWO JOB REFERRALS THROUGH THE AEP, YOU NEED COMPLETE ONLY THE FIRST TWO SETS OF QUESTIONS BEFORE MOVING ON TO SECTION II.

A. NLC Referral

1. Date you learned about Job ONE : Month__________/Day________
2. Name of Agency:______________________________________
3. Location: City___________________________/State______________
4. Title of Position:___________________________________
5. Monthly Salary: $_______________/Month
6. Brief description of duties:___________________________

____

7. Did you contact this agency first? Yes No
8. Did the agency contact you first? Yes No
9. Did you formally apply for a job? Yes No
10. Did you meet with agency personnel? Yes No
11. Did you use TMRP funds to attend interviews? Yes No
12. Was a job offered? Yes No
13. Did you accept the offer? Yes No
14. Is the agency still considering you for a job? Yes No
15. Are you still thinking about whether to accept the job offer? Yes No
16. Did the job require a Civil Service exam? Yes No
17. Did the Emergency Employment Act affect the availability of or your eligibility for the job in any way? Yes No
18. If the Emergency Employment Act had any bearing on the availability of the job or on your eligibility for it, what was it?

____

____

____

19. An agency considers several factors in making a decision to offer a position to an applicant. Similarly, an applicant must take a number of things into account in deciding to accept an offer.

How important was each of the following factors in your decisions about this particular NLC referral? Rank each factor in order of importance to you. Place a 1 beside the most important factor, a 2 beside the second most important factor, and so on.

_______ Pay and benefits
_______ Location
_______ Type of work
_______ Type of agency
_______ Level of position
_______ Job security
_______ Opportunity to use skills/abilities
_______ Opportunity for advancement
_______ Other. (Please specify: ____________________).

20. Additional comments : ______________________________
____
____
____

B. **NLC Referral**

1. Date you learned about Job TWO : Month__________/Day________
2. Name of Agency:____
3. Location: City___________________________/State_______________
4. Title of Position:____
5. Monthly Salary: $_______________/Month
6. Brief description of duties:_________________________________

____

7. Did you contact this agency first? Yes No
8. Did the agency contact you first? Yes No
9. Did you formally apply for a job? Yes No
10. Did you meet with agency personnel? Yes No
11. Did you use TMRP funds to attend interviews? Yes No
12. Was a job offered? Yes No
13. Did you accept the offer? Yes No
14. Is the agency still considering you for a job? Yes No
15. Are you still thinking about whether to accept the job offer? Yes No
16. Did the job require a Civil Service exam? Yes No
17. Did the Emergency Employment Act affect the availability of or your eligibility for the job in any way? Yes No
18. If the Emergency Employment Act had any bearing on the availability of the job or on your eligibility for it, what was it?

____

____

____

19. An agency considers several factors in making a decision to offer a position to an applicant. Similarly, an applicant must take a number of things into account in deciding to accept an offer.

How important was each of the following factors in your decisions about this particular NLC referral? Rank each factor in order of importance to you. Place a 1 beside the most important factor, a 2 beside the second most important factor, and so on.

_______ Pay and benefits
_______ Location
_______ Type of work
_______ Type of agency
_______ Level of position
_______ Job security
_______ Opportunity to use skills/abilities
_______ Opportunity for advancement
_______ Other. (Please specify: ____________________).

20. Additional comments : ____________________
____
____
____

C. NLC Referral

1. Date you learned about Job THREE : Month__________/Day________
2. Name of Agency:____
3. Location: City__________________________/State_______________
4. Title of Position:____
5. Monthly Salary: $_______________/Month
6. Brief description of duties:_________________________________

____

7. Did you contact this agency first? Yes No
8. Did the agency contact you first? Yes No
9. Did you formally apply for a job? Yes No
10. Did you meet with agency personnel? Yes No
11. Did you use TMRP funds to attend interviews? Yes No
12. Was a job offered? Yes No
13. Did you accept the offer? Yes No
14. Is the agency still considering you for a job? Yes No
15. Are you still thinking about whether to accept the job offer? Yes No
16. Did the job require a Civil Service exam? Yes No
17. Did the Emergency Employment Act affect the availability of or your eligibility for the job in any way? Yes No
18. If the Emergency Employment Act had any bearing on the availability of the job or on your eligibility for it, what was it?

____

____

____

19. An agency considers several factors in making a decision to offer a position to an applicant. Similarly, an applicant must take a number of things into account in deciding to accept an offer.

How important was each of the following factors in your decisions about this particular NLC referral? Rank each factor in order of importance to you. Place a 1 beside the most important factor, a 2 beside the second most important factor, and so on.

_______ Pay and benefits
_______ Location
_______ Type of work
_______ Type of agency
_______ Level of position
_______ Job security
_______ Opportunity to use skills/abilities
_______ Opportunity for advancement
_______ Other. (Please specify:______________________).

20. Additional comments : ______________________________________
____
____
____

D. NLC Referral

1. Date you learned about Job FOUR : Month__________/Day________
2. Name of Agency:______________________________
3. Location: City____________________/State__________
4. Title of Position:____________________________
5. Monthly Salary: $______________/Month
6. Brief description of duties:______________________
____
7. Did you contact this agency first? Yes No
8. Did the agency contact you first? Yes No
9. Did you formally apply for a job? Yes No
10. Did you meet with agency personnel? Yes No
11. Did you use TMRP funds to attend interviews? Yes No
12. Was a job offered? Yes No
13. Did you accept the offer? Yes No
14. Is the agency still considering you for a job? Yes No
15. Are you still thinking about whether to accept the job offer? Yes No
16. Did the job require a Civil Service exam? Yes No
17. Did the Emergency Employment Act affect the availability of or your eligibility for the job in any way? Yes No
18. If the Emergency Employment Act had any bearing on the availability of the job or on your eligibility for it, what was it?

____
____
____

19. An agency considers several factors in making a decision to offer a position to an applicant. Similarly, an applicant must take a number of things into account in deciding to accept an offer.

How important was each of the following factors in your decisions about this particular NLC referral? Rank each factor in order of importance to you. Place a 1 beside the most important factor, a 2 beside the second most important factor, and so on.

_______ Pay and benefits
_______ Location
_______ Type of work
_______ Type of agency
_______ Level of position
_______ Job security
_______ Opportunity to use skills/abilities
_______ Opportunity for advancement
_______ Other. (Please specify:_______________________).

20. Additional comments : _______________________________
____
____
____

E. **NLC Referral**

1. Date you learned about Job FIVE: Month__________/Day________
2. Name of Agency:______________________________________
3. Location: City_________________________/State__________
4. Title of Position:____________________________________
5. Monthly Salary: $______________/Month
6. Brief description of duties:__________________________

____

7.	Did you contact this agency first?	Yes	No
8.	Did the agency contact you first?	Yes	No
9.	Did you formally apply for a job?	Yes	No
10.	Did you meet with agency personnel?	Yes	No
11.	Did you use TMRP funds to attend interviews?	Yes	No
12.	Was a job offered?	Yes	No
13.	Did you accept the offer?	Yes	No
14.	Is the agency still considering you for a job?	Yes	No
15.	Are you still thinking about whether to accept the job offer?	Yes	No
16.	Did the job require a Civil Service exam?	Yes	No
17.	Did the Emergency Employment Act affect the availability of or your eligibility for the job in any way?	Yes	No

18. If the Emergency Employment Act had any bearing on the availability of the job or on your eligibility for it, what was it?

____

____

____

19. An agency considers several factors in making a decision to offer a position to an applicant. Similarly, an applicant must take a number of things into account in deciding to accept an offer.

How important was each of the following factors in your decisions about this particular NLC referral? Rank each factor in order of importance to you. Place a 1 beside the most important factor, a 2 beside the second most important factor, and so on.

_______ Pay and benefits
_______ Location
_______ Type of work
_______ Type of agency
_______ Level of position
_______ Job security
_______ Opportunity to use skills/abilities
_______ Opportunity for advancement
_______ Other. (Please specify:_______________________).

20. Additional comments : ______________________________

____

____

____

F. NLC Referral

1. Date you learned about Job SIX : Month__________/Day________
2. Name of Agency:______________________________
3. Location: City______________________/State______________
4. Title of Position:____________________________
5. Monthly Salary: $_____________/Month
6. Brief description of duties:______________________
____
7. Did you contact this agency first? Yes No
8. Did the agency contact you first? Yes No
9. Did you formally apply for a job? Yes No
10. Did you meet with agency personnel? Yes No
11. Did you use TMRP funds to attend interviews? Yes No
12. Was a job offered? Yes No
13. Did you accept the offer? Yes No
14. Is the agency still considering you for a job? Yes No
15. Are you still thinking about whether to accept the job offer? Yes No
16. Did the job require a Civil Service exam? Yes No
17. Did the Emergency Employment Act affect the availability of or your eligibility for the job in any way? Yes No
18. If the Emergency Employment Act had any bearing on the availability of the job or on your eligibility for it, what was it?

____

____

____

19. An agency considers several factors in making a decision to offer a position to an applicant. Similarly, an applicant must take a number of things into account in deciding to accept an offer.

How important was each of the following factors in your decisions about this particular NLC referral? Rank each factor in order of importance to you. Place a 1 beside the most important factor, a 2 beside the second most important factor, and so on.

_______ Pay and benefits
_______ Location
_______ Type of work
_______ Type of agency
_______ Level of position
_______ Job security
_______ Opportunity to use skills/abilities
_______ Opportunity for advancement
_______ Other. (Please specify: ____________________).

20. Additional comments : ______________________________
____
____
____

G. NLC Referral

1. Date you learned about Job SEVEN: Month __________/Day ________
2. Name of Agency: ______________________________
3. Location: City ____________________/State ____________
4. Title of Position: ______________________________
5. Monthly Salary: $ ____________/Month
6. Brief description of duties: ______________________________

____

7. Did you contact this agency first? Yes No
8. Did the agency contact you first? Yes No
9. Did you formally apply for a job? Yes No
10. Did you meet with agency personnel? Yes No
11. Did you use TMRP funds to attend interviews? Yes No
12. Was a job offered? Yes No
13. Did you accept the offer? Yes No
14. Is the agency still considering you for a job? Yes No
15. Are you still thinking about whether to accept the job offer? Yes No
16. Did the job require a Civil Service exam? Yes No
17. Did the Emergency Employment Act affect the availability of or your eligibility for the job in any way? Yes No
18. If the Emergency Employment Act had any bearing on the availability of the job or on your eligibility for it, what was it?

____

____

____

19. An agency considers several factors in making a decision to offer a position to an applicant. Similarly, an applicant must take a number of things into account in deciding to accept an offer.

How important was each of the following factors in your decisions about this particular NLC referral? Rank each factor in order of importance to you. Place a 1 beside the most important factor, a 2 beside the second most important factor, and so on.

_______ Pay and benefits
_______ Location
_______ Type of work
_______ Type of agency
_______ Level of position
_______ Job security
_______ Opportunity to use skills/abilities
_______ Opportunity for advancement
_______ Other. (Please specify: ______________________).

20. Additional comments : ______________________________
____
____
____

II. General Questionnaire For ALL Those Attending The MIT Summer Orientation

A. Employment

1. What is your current employment status:
(CHECK ALL THAT APPLY)
☐ Employed full-time
☐ Unemployed
☐ Employed part-time
☐ Self-employed
☐ Other. Please specify: ______________________________

2. Is your spouse employed?
☐ Yes
☐ No

3. Was your last previous employment:
☐ Full-time in your professional field?
☐ Part-time in your professional field?
☐ Full-time outside your professional field?
☐ Part-time outside your professional field?
☐ Other? Please explain: ______________________________
____

4. What was the termination date of your last previous employment?
Month__________/Day__________/Year__________

5. If your last job was part-time, or if it was a full-time job outside your professional field, when did you leave your last full-time job in your professional field?
Month__________/Day__________/Year__________

In order to be certain that we have accurate information about your last previous full-time professional employment, please provide the following information about that former job:

6. Employer: ______________________________

7. Location: City________________; State______________

8. Monthly salary at termination:$______________/Month

9. Reason(s) for leaving:______________________________

____

____

____

10. Did that job give you a chance to do the things you do best?

☐ Strong Yes
☐ More Yes Than No
☐ 50/50
☐ More No Than Yes
☐ Strong No

11. Did you get a feeling of accomplishment from that job?

☐ Strong No
☐ More No Than Yes
☐ 50/50
☐ More Yes Than No
☐ Strong Yes

12. Did the job earn you respect from your friends?

☐ Strong No
☐ More No Than Yes
☐ 50/50
☐ More Yes Than No
☐ Strong Yes

13. Did it earn you respect in the local community or in the neighborhood where you lived?

☐ Strong Yes
☐ More Yes Than No
☐ 50/50
☐ More No Than Yes
☐ Strong No

14. What had most influence on the way you went about your professional work?
    - ☐ Praise from superiors
    - ☐ Recognition from colleagues
    - ☐ Both about the same
    - ☐ Neither
    - ☐ Other. (Please state: ______________________________ ______________________________.)

15. All things considered, were you satisfied with that job?
    - ☐ Strong No
    - ☐ More No Than Yes
    - ☐ 50/50
    - ☐ More Yes Than No
    - ☐ Strong Yes

16. Which aspects of that job did you like most? Rank the following factors in the order that most reflects your likes and dislikes about your last full-time job in your professional field. Place a 1 after the aspect you liked most, a 2 after the factor you liked second best, and so on.

    ______ Level of position and responsibility
    ______ Opportunity to use skills/abilities
    ______ Opportunity for professional growth
    ______ Pay and benefits
    ______ Chance to get to meet new people
    ______ Chance to help others (e.g. community service, encouraging or helping subordinates)
    ______ Location
    ______ Opportunity for advancement in the company
    ______ Other. (Please specify: ______________________________ ______________________________.)

17. In that job were you using primarily:
    - ☐ Your management skills?
    - ☐ Your technical skills?
    - ☐ Both about the same?

18. Some employers like to think of technical proficiency and managerial skills as two different kinds of aptitudes. Both abilities may or mav not be found to the same extent in one person. How would you describe yourself on these two dimensions?

(CHECK ONE)

☐ Technically proficient, limited managerial skills
☐ More technically proficient than skilled in management
☐ Equally skilled in technical and managerial areas
☐ More skilled in management than technically proficient
☐ Skilled in management, limited technical skills

B. Urban Government

19. In general, do you believe urban agencies are similar to the aerospace or defense organization you came from?

☐ Similar in nearly all ways
☐ Similar in more ways than not
☐ About as similar as dissimilar
☐ Dissimilar in more ways than similar
☐ Dissimilar in nearly all ways

Of the following characteristics of urban government organizations, which do you think are similar to aerospace and defense organizations and which different?

20. ☐ similar ☐ different The quality of personnel
21. ☐ similar ☐ different The structure of the organization
22. ☐ similar ☐ different The decision-making process
23. ☐ similar ☐ different The delegation of authority
24. ☐ similar ☐ different Personal relationships among employees
25. ☐ similar ☐ different The way in which personnel are evaluated

26. ☐ similar ☐ different Public respect for services performed

27. ☐ similar ☐ different Amount of work assigned to employees

Would you agree or disagree with the following statement?

28. ☐ agree ☐ disagree Change in the policies of public agencies is most often accomplished by people working within the agency itself.

29. ☐ agree ☐ disagree Regulation of local air and water pollution emission is best accomplished by state government.

30. ☐ agree ☐ disagree The concentration of minority groups in the central cities of metropolitan areas is a result of a steady, direct migration from southern rural areas.

31. ☐ agree ☐ disagree The professionalization of the police has tended, over time, to increase the responsiveness of police to community needs.

32. ☐ agree ☐ disagree The placement of a "new town" should be primarily the decision of adjacent communities.

33. Since the end of the MIT orientation, have you had a chance to review any of the reading materials included in your ADAPT packet?

☐ No (Skip to Question 35)
☐ Yes

34. If yes, which items have you found most useful and for what purpose? (Arrange them in rank order, listing the most useful after "a," the next most useful after "b" and so on.)

	Item	Purpose
a.		
b.		
c.		
d.		
e.		

35. Have you done any additional reading or research on urban affairs since the end of August?

☐ No (Skip to Question 37.)
☐ Yes

36. If yes, please describe briefly what you have done in the space provided below: ______________________

____

____

____

____

37. Which of the following do you believe constitute the most effective policies for alleviating urban problems? (Please check three)

☐ Increase the rate of housing construction
☐ Encourage industrial and commercial development in the cities
☐ Reduce the crime rate
☐ Prevent crime rates from rising
☐ Improve pre-school and elementary public education
☐ Regulate polluting industries and vehicles
☐ Create more jobs for low-income families
☐ Encourage migration of low-income families to suburbs
☐ Provide mayors with greater levels of funding and expertise
☐ Formulate a national urban development strategy

At what level of government are the following services best performed?

	local	metro	sub-state	state	Federal
38. water pollution control	☐	☐	☐	☐	☐
39. zoning and subdivision control	☐	☐	☐	☐	☐
40. water supply	☐	☐	☐	☐	☐
41. housing code enforcement	☐	☐	☐	☐	☐
42. secondary education	☐	☐	☐	☐	☐
43. law enforcement	☐	☐	☐	☐	☐
44. public welfare	☐	☐	☐	☐	☐
45. industrial development	☐	☐	☐	☐	☐

What do the following terms mean as applied to cities?

46. New town: ______

47. COG: ______

48. Revenue sharing: ______

49. A-95 Review: ______

50. Maximum feasible participation: ______

51. Planned variations: ______

52. HUD: ______

53. Operation Breakthrough: ______

54. Master plan: ______

55. EPA: ______

56. Block grant: ______

C. Urban Career Orientation

57. From what you know of urban government organizations, do you think an urban job can give you a chance to do the things you do best?

☐ Strong No
☐ More No Than Yes
☐ 50/50
☐ More Yes Than No
☐ Strong Yes

58. Do you think such a job can give you any sense of accomplishment?

- ☐ Strong Yes
- ☐ More Yes Than No
- ☐ 50/50
- ☐ More No Than Yes
- ☐ Strong No

59. Do you think such a job would earn you respect from your friends?

- ☐ Strong Yes
- ☐ More Yes Than No
- ☐ 50/50
- ☐ More No Than Yes
- ☐ Strong No

60. Do you think it would earn you respect in a community like the one where you now live?

- ☐ Strong No
- ☐ More No Than Yes
- ☐ 50/50
- ☐ More Yes Than No
- ☐ Strong Yes

61. Even if you are currently employed, please describe a job in urban government that you feel realistically would make best use of your technical skills and management experience and help you get ahead in your career. (Include, if you can, type of organization or agency, type of work, level of responsibility, etc.):

____

____

____

____

____

62. At which level of government would you prefer to work? (CHECK ONE)
- ☐ Federal
- ☐ State
- ☐ Regional (council of governments, regional planning boards, etc.)
- ☐ County
- ☐ Municipal
- ☐ Independent authority (independent school district, water district, port authority, etc.)

63. What size municipality would you prefer to work in?
- ☐ 5,000-15,000
- ☐ 15,000-50,000
- ☐ 50,000-100,000
- ☐ 100,000-500,000
- ☐ over 500,000

64. What region of the country would it be located in? (CHECK ONE)
- ☐ Northeast
- ☐ Middle Atlantic
- ☐ South
- ☐ Middle West
- ☐ Southwest
- ☐ Pacific
- ☐ Rocky Mountain States

65. What kind of government structure would it have?
- ☐ Strong legislature
- ☐ City manager
- ☐ Town meeting
- ☐ Strong mayor

66. What kind of a city would it be?
- ☐ Central city of a metropolitan area
- ☐ Inner suburb of a metropolitan area
- ☐ Outer suburb of a metropolitan area
- ☐ An independent, incorporated town, not part of a metropolitan area
- ☐ In a rural area

67. Assume the following professional roles in urban government were the only ones available in the municipality in which you prefer to work. How would you rank them in order of personal preference? (Place a 1 before the most preferred choice, place a 2 before your second preference, a 3 before the third, and so on.)

_______ central administration
_______ program evaluation
_______ information systems
_______ management of specific programs
_______ work within a specific scientific or engineering discipline

68. In general, what work-related factors are most important to you in selecting a new job? Please rank the following factors in order of personal preference. (Place a 1 before the next most important factor, and so on.)

_______ pay and benefits
_______ opportunity for professional growth
_______ opportunity for advancement
_______ job security
_______ location
_______ opportunity to use skills/abilities
_______ chance to meet new people
_______ level of position and responsibility
_______ chance to help others (e.g. community service, encouraging or helping subordinates)
_______ other. (Please specify:_________________________)

D. Job Search Activity

69. Had you thought about getting a job in a non-defense public agency before you learned about the Aerospace Employment Project and Project ADAPT?

☐ Yes
☐ No

70. Had you actually begun to search for a job in a public agency prior to attending the orientation at MIT?

☐ Yes
☐ No (SKIP TO QUESTION 77)

71. How did you go about looking for employment in public agencies prior to the August orientation?

☐ Sending letters and resumes to potential employers
☐ Through public employment agencies
☐ Through voluntary self-help groups of unemployed
☐ Through private employment agencies
☐ Newspaper or magazine ads
☐ Through professional colleagues
☐ Through personal friends and acquaintances
☐ Other. Please specify: ______________________

72. Of the various job seeking approaches listed above, which one of them did you use most frequently in looking for a job in a public agency before Project ADAPT? (CHECK ONLY ONE)

☐ Sending letters and resumes to potential employers
☐ Through public employment agencies
☐ Through voluntary self-help groups of unemployed
☐ Through private employment agencies
☐ Newspaper or magazine ads
☐ Through professional colleagues
☐ Through personal friends and acquaintances
☐ Other. Please specify: ______________________

73. How many contacts about non-defense public employment would you estimate you made prior to the orientation at MIT?

☐ None
☐ 1-8
☐ 9-27
☐ 28-64
☐ 65-125
☐ More than 125

74. How many interviews for non-defense public sector jobs did you have prior to the orientation program? (CIRCLE ONE)

0 1 2 3 4 5 6 7 8 9 10 over 10

75. Did you change your approach to seeking public sector jobs as a result of Project ADAPT?

Yes
No (SKIP TO QUESTION 77)

76. If yes, how?____

77. Did you revise your resume after the summer orientation?

Yes
No (SKIP TO QUESTION 79)

78. If yes, how?____

79. Which of the following approaches to find public employment have you used since the end of Project ADAPT? (CHECK ALL THAT APPLY)

☐ Sending letters and resumes to potential employers
☐ Through private employment agencies
☐ Through fellow students from Project ADAPT
☐ Newspaper and magazine ads
☐ Through voluntary self-help groups of unemployed
☐ Through public employment agencies
☐ Through professional colleagues
☐ Through personal friends and acquaintances
☐ Other. Please specify:____________________________

80. Not counting NLC referrals, how many contacts have you made about jobs in public agencies since finishing the summer orientation at MIT?

☐ None
☐ 1-8
☐ 9-27
☐ 28-64
☐ 65-125
☐ Over 125

81. How many times have you contacted the National League of Cities about employment prospects?
☐ 0-4
☐ 5-9
☐ 10-14
☐ 15-19
☐ 20 or more

82. Not counting those set up through NLC's Aerospace Employment Project, how many job interviews for non-defense public agency jobs have you had since Project ADAPT ended? (CIRCLE ONE)

0 1 2 3 4 5 6 7 8 9 10 over 10

83. Of those non-NLC-related interviews, how many were for positions in municipal or regional agencies? (CIRCLE ONE)

0 1 2 3 4 5 6 7 8 9 10 over 10

84. How did you first learn about these non-NLC-related job openings in municipal or regional agencies? (CHECK ALL THAT APPLY)
☐ Fellow students in Project ADAPT
☐ Other professional contacts
☐ Newspaper and magazine ads, public circulars, etc.
☐ Public employment agencies
☐ Personal friends and acquaintances
☐ Private employment agencies
☐ The hiring agency itself
☐ Voluntary self-help groups of unemployed
☐ Other. Please specify: ____________________

85. Has your Project ADAPT experience had a favorable effect on agency recruiters or interviewers? (CHECK ONE)
☐ No, it is inconsequential
☐ It "got my foot in the door"
☐ Yes, it has been considered quite important
☐ I don't know
☐ Other. Please explain: ____________________

E. Civic and Professional Activities

86. Has your involvement in civic affairs changed as a result of the August orientation?

☐ Yes

☐ No (Skip to Question 89)

87. If yes, how has that involvement changed?

88. How did your Project ADAPT experience influence the change(s) in your involvement in civic affairs?

89. Has your involvement in professional society activities changed as a result of the ADAPT orientation?

☐ Yes

☐ No (Skip to Question 92)

90. If yes, how did that involvement change?

91. How did the orientation experience affect the change(s) in your involvement in professional society activities?

F. Background Information

Certain background questions were inadvertently omitted from previous questionnaires you have received from the staff. Would you please provide that information in the spaces provided below?

92. Have you changed your residence from one metropolitan area to another within the last twelve months?

☐ Yes
☐ No

93. What is the population of the largest metropolitan area in which you have lived for at least one year during your professional career?

☐ 5,000-250,000
☐ 250,000-500,000
☐ 500,000-750,000
☐ 750,000-1,000,000
☐ 1,000,000-5,000,000
☐ Over 5,000,000

94. What is the population of the largest municipality in which you have lived for at least one year during your professional career?

☐ 5,000-15,000
☐ 15,000-50,000
☐ 50,000-100,000
☐ 100,000-500,000
☐ Over 500,000

95. During your professional career, how many times have you relocated? (CIRCLE ONE)

0 1 2 3 4 5 6 7 8 9 10 over 10

96. During your professional career, in which of the following regions have you lived? (CHECK ALL THAT APPLY)

☐ Northeast
☐ Middle Atlantic
☐ South
☐ Middle West
☐ Southwest
☐ Pacific
☐ Rocky Mountain States

97. What is your family's current monthly income from all sources?

- ☐ Less than $199/month
- ☐ $200-399/month
- ☐ $400-599/month
- ☐ $600-799/month
- ☐ $800-999/month
- ☐ $1,000-1,199/month
- ☐ $1200-1399/month
- ☐ $1400-1599/month
- ☐ $1600 or more/month

98. Not counting yourself, how many legal dependents do you have? (CIRCLE ONE)

0 1 2 3 4 5 6 7 8 9 10 over 10

III. Questions For All Those NOW EMPLOYED FULL-TIME

1. What type of organization do you work for?
   - ☐ Government agency
   - ☐ Not-for-profit organization
   - ☐ Private firm

2. Name of the organization: ____________________

3. Position: ____________________

4. Brief description of your main duties and responsibilities:
   ____

5. Monthly salary:
   - ☐ less than $199/month
   - ☐ $200-599/month
   - ☐ $600-799/month
   - ☐ $800-999/month
   - ☐ $1000-1199/month
   - ☐ $1200-1399/month
   - ☐ $1400-1599/month
   - ☐ $1600 or more/month

6. Do you supervise anyone in your present job?
   - ☐ Yes
   - ☐ No (SKIP TO QUESTION 8)

7. Total number of employees you supervise:
   - ☐ less than 5
   - ☐ 6-9
   - ☐ 10-24
   - ☐ 25-49
   - ☐ 50-99
   - ☐ 100 or more

8. Approximately when did you first learn about the job you now hold?

   Day____________/Month____________/Year____________

9. From what source(s) did you first learn about your present job?

CHECK ALL THAT APPLY

☐ National League of Cities Aerospace Employment Program
☐ Private employment agency
☐ Public employment agency
☐ Newspaper or magazine ads
☐ Through fellow sutdents at Project ADAPT
☐ Through voluntary self-help groups of unemployed
☐ Through professional colleagues
☐ Through personal friends and acquaintances
☐ Through the hiring organization itself
☐ Other(s). Please specify: ____________________

____

10. Which of the following best describes the relationship of your present position to the organization?

CHECK ONE

☐ a standing position within the organization (one or more individuals held the position before you)
☐ a newly created position (you are the first to hold a position that had already been created)
☐ a position created specifically for you (the idea of creating your position developed in discussion with your present employer)
☐ other. Please explain: ____________________

____

11. Is the job you now hold the job for which you were first interviewed by your employer?

☐ Yes
☐ No

12. How did the organization first learn about you?
- ☐ National League of Cities Aerospace Employment Project
- ☐ Private employment agency
- ☐ Public employment agency
- ☐ Newspaper or magazine ads
- ☐ Through fellow students at Project ADAPT
- ☐ Through voluntary self-help groups of unemployed
- ☐ Through professional colleagues
- ☐ Through personal friends and acquaintances
- ☐ Through your own initiative (mailed resumes, phone calls, visits, etc.)
- ☐ Don't know
- ☐ Others. Please specify: ____________________

13. When did your first interview for your present job take place?

Day ____________/Month ____________/Year ____________

14. Were you eligible for TMRP funds to travel for interviews at that time?
- ☐ Yes
- ☐ No (SKIP TO QUESTION 16)

15. Did you use TMRP interview travel funds to meet with representatives of the organization you now work for?
- ☐ Yes
- ☐ TMRP covered part of the travel expense
- ☐ No. I used other funds
- ☐ No. The organization paid travel expenses for my interview(s)
- ☐ No travel expense was incurred
- ☐ Other. Please explain: ____________________

____

16. When did you actually start to work?

Day ____________/Month ____________/Year ____________

17. Did you have to relocate your residence in order to accept your new position?
- ☐ Yes
- ☐ No (SKIP TO QUESTION 22)

18. Were you eligible for TMRP funds for moving expenses?

    ☐ Yes
    ☐ No (SKIP TO QUESTION 22)
    ☐ Other. Please explain: ______________________________

    ____

19. Did you use TMRP funds to relocate?

    ☐ Yes. TMRP covered moving expenses
    ☐ TMRP covered part of the moving expenses
    ☐ No. The organization paid moving expenses
    ☐ No. I used other funds

20. Would you have been able to accept the position if TMRP funds had not been available?

    ☐ I would have been able to finance the move in other ways
    ☐ I would have been forced to decline the offer without TMRP funds
    ☐ My employer could have paid all or part of the expense of moving

21. Did the availability of TMRP funds have any bearing on the willingness of your employer to offer you the job you now hold?

    ☐ Yes. It was a decisive factor
    ☐ It gave me an edge over other applicants
    ☐ It was discussed, but had little effect
    ☐ The subject never came up
    ☐ Don't know
    ☐ Other. Please explain: ______________________________

    ____

22. Name(s) and title(s) of your interviewer(s):

	name	title
a.	____________________	____________________
b.	____________________	____________________
c.	____________________	____________________
d.	____________________	____________________
e.	____________________	____________________

23. A job interview not only helps an employer decide whether to hire a person; it also shapes the applicant's impressions of the job.

What about you interested your interviewers most? What, if anything, did they seem most worried about?

____

____

____

____

24. Did your Project ADAPT experience improve your ability to "put your best foot forward" in your interview(s)?

CHECK ONE

☐ Yes, but only indirectly
☐ Yes. It improved my performance
☐ Yes. It was the primary factor in my success
☐ No. It adversely affected my performance
☐ It had no bearing on any performance (SKIP TO QUESTION 26)
☐ Other. Please explain: ______________________

____

25. How did the ADAPT orientation experience improve or detract from your performance in the interview(s)?

____

____

____

____

26. Were any specific procedures used to qualify you for this position?

CHECK ALL THAT APPLY

☐ Written or oral examination
☐ Formal executive determination
☐ Waiver of requirements
☐ No. I was considered qualified
☐ Other. Please specify: ______________________

Comments: ______________________________________

____

27. Are you finding skills and experience from your previous professional experience useful in your present position?
(Check One)

☐ Strong No
☐ More No Than Yes
☐ 50/50
☐ More Yes Than No
☐ Strong Yes

28. What are the skills and experience from previous aerospace or defense employment that are most useful to you in your current job?
(Use examples, if you wish)

29. How useful has your previous experience in civic affairs been in helping you to do your present job?
(Check One)

☐ No usefulness at all
☐ Very little usefulness
☐ Some usefulness
☐ Considerable usefulness
☐ Very much usefulness

30. Does your present job give you the chance to do the things you do best?
(Check One)

☐ Strong No
☐ More No Than Yes
☐ 50/50
☐ More Yes Than No
☐ Strong Yes

31. In comparison with your last professional job in aerospace, would you say that your present job gives you greater opportunity to do what you do best?
(Check One)
- ☐ Strong Yes
- ☐ More Yes Than No
- ☐ 50/50
- ☐ More No Than Yes
- ☐ Strong No

32. Which aspects of your job do you like most? Please rank - order the following factors. Place a 1 beside the aspect of your job you like most. Place a 2 beside that factor you like second best, and so on.

______ Opportunity for rewarding collegial relationships
______ Opportunity for advancement
______ Job security
______ Position and responsibility
______ Opportunity for meaningful community relationships
______ Use of your special abilities and/or training
______ Pay and benefits
______ Other. Please specify: ______________________________
____

IF YOU ARE EMPLOYED FULL-TIME IN A GOVERNMENT AGENCY, SKIP TO SECTION IIIB (red) AND CONTINUE. IF YOU ARE EMPLOYED FULL-TIME IN A PRIVATE FIRM OR NOT-FOR-PROFIT ORGANIZATION, PLEASE ANSWER THE QUESTIONS IN SECTION IIIA (yellow).

III.A. Questions For Those Currently Employed Full-Time In A Private Firm Or Not-For-Profit Organization

1. Which ONE of the following best describes the type of work you now do?

☐ Engineering in the same field of specialization as when laid off
☐ Engineering in a different field of specialization, but one in which I have some educational or work experience
☐ Engineering in a field in which I have no previous experience
☐ Manager or proprietor of my own company or operation
☐ Manager or administrator
☐ Technician
☐ Consultant
☐ Teacher, instructor, or professor
☐ Salesman
☐ Skilled worker or craftsman
☐ Author or artist
☐ Other. Please specify: ______________________________

2. What kinds of goods or services does your organization produce or perform?

____
____
____
____

3. Is your work in any way related to the issues, problems, and topics covered in the ADAPT orientation last summer?

☐ Yes
☐ No (SKIP TO QUESTION 5)

4. If "yes," how are they related?

____
____
____
____

5. Has your experience in Project ADAPT helped in your work?

   ☐ Yes
   ☐ No
   ☐ Don't know

6. If "yes," how?

CONGRATULATIONS! YOU HAVE COMPLETED THE MARATHON. ANY ADDITIONAL COMMENTS YOU MIGHT LIKE TO MAKE ARE WELCOME.

IF YOU ARE CURRENTLY EMPLOYED FULL-TIME IN A GOVERNMENT AGENCY, PLEASE ANSWER THE QUESTIONS IN THIS SECTION. IF YOU ARE EMPLOYED FULL-TIME IN A PRIVATE FIRM OR NOT-FOR-PROFIT ORGANIZATION, YOU SHOULD HAVE COMPLETED THE QUESTIONS IN SECTION III.A.

III.B. Questions For Those Currently Employed Full-Time in Government Agencies

1. Is your job classified as a civil service position?
   - ☐ Yes
   - ☐ No (SKIP TO QUESTION 5)
2. Are you subject to civil service eligibility requirements?
   - ☐ Yes
   - ☐ No (SKIP TO QUESTION 5)
3. Have you met all those requirements?
   - ☐ No
   - ☐ Yes (SKIP TO QUESTION 5)
4. What requirements remain to be satisfied?

   ____

   ____

   ____
5. The Aerospace Employment Program agreed to provide your employing agency $1,000 for the purpose of giving you additional training. What kind of on-the-job training has your agency provided for you?

   ____

   ____

   ____

   ____

   ____
6. How important to the agency was the $1,000 bonus in securing your job?
   - ☐ It had no bearing at all
   - ☐ It was a minor factor
   - ☐ It was a significant factor
   - ☐ Don't know

7. Did the Emergency Employment Act of 1971 have any bearing on the availability of, or your eligibility for, the job you now hold?

☐ Yes

☐ No (SKIP TO QUESTION 9)

8. If "yes," what was it?

9. What level of government agency do you work for?

CHECK ONE

☐ Federal

☐ State

☐ Regional (council of governments, regional planning board, etc.)

☐ County

☐ Municipal

☐ Independent authority (independent school district, water district, port authority, etc.)

10. What are the main functions and goals of your agency?

11. If you are assigned to a particular organizational unit in the agency, please describe the role of your unit within the agency:

12. To what extent did the ADAPT orientation influence your expectations about the interpersonal or technical problems you might encounter on this job?
CHECK ONE
☐ Very much influence
☐ Considerable influence
☐ Some influence
☐ Very little influence
☐ No influence at all (SKIP TO QUESTION 18)

13. To the degree possible, please identify the specific aspects of the MIT orientation program (particular speakers, sessions, or exercises, for example) which most influenced your expectations about the problems you would face on this job.

____
____
____
____
____

14. Would you say the over-all effect of the orientation had a greater influence on the problems you expected to find than particular parts of the orientation did?
☐ Yes
☐ No

15. On reflection, do you think the Project ADAPT orientation misled you as to what to expect on this job?
☐ Strong Yes
☐ More Yes Than No
☐ 50/50
☐ More No Than Yes
☐ Strong No

16. In light of your on-the-job expectance, what aspects of the ADAPT orientation experience were misleading?

17. In general, would you say your ADAPT experience was more useful than misleading in shaping your expectations about your present job situation?

    ☐ Strong Yes, More Useful Than Misleading
    ☐ More Yes Than No
    ☐ 50/50
    ☐ More No Than Yes
    ☐ Strong No, More Misleading Than Useful

18. President Nixon recently endorsed the space shuttle program. He also proposed a substantial increase in defense spending next year.

    Do you think these developments would open up new employment opportunities for you in the aerospace or defense industries?

    ☐ Strong No
    ☐ More No Than Yes
    ☐ 50/50
    ☐ More Yes Than No
    ☐ Strong Yes

19. If a private firm in the area where you now live offered you a job similar to your old job in aerospace or defense, would you be inclined to accept?

    ☐ Strong Yes
    ☐ More No Than Yes
    ☐ 50/50
    ☐ More Yes Than No
    ☐ Strong No

20. If accepting such an offer meant that you would have to relocate to another part of the country, would you accept it?

    ☐ Strong Yes
    ☐ More Yes Than No
    ☐ 50/50
    ☐ More No Than Yes
    ☐ Strong No

THANKS FOR YOUR DILIGENCE. WE CAN'T THINK OF ANYTHING ELSE TO ASK YOU...AT THE MOMENT.

IV. Questions For Those Currently Unemployed Or Underemployed (Employed Part-Time)

1. Are or were you at one time eligible for TMRP funds?
   - ☐ Yes
   - ☐ No (SKIP TO QUESTION 4)

2. Have you used TMRP funds to travel for job interviews?
   - ☐ Yes
   - ☐ No (SKIP TO QUESTION 4)

3. Is TMRP money still available for you to use in traveling to interviews?
   - ☐ Yes
   - ☐ No

4. As you know, President Nixon recently approved the space shuttle program. He also proposed a substantial increase in defense spending next year.

   Do you think these developments will open up new employment opportunities for you in the aerospace or defense industries?
   - ☐ Strong No
   - ☐ More No Than Yes
   - ☐ 50/50
   - ☐ More Yes Than No
   - ☐ Strong Yes

5. In the general section of this survey, you described a job in urban government that realistically would make best use of your technical skills and management experience and would help you get ahead in your career (page 24, question 61).

   Given your estimate of possible employment opportunities in the aerospace or defense industries, would you prefer that job in urban government or a job similar to the one you left?
   - ☐ a position in urban government similar to the one I described on page 24
   - ☐ a position in aerospace or defense similar to the one I left

6. Assuming pay and benefits of the two jobs were approximately the same, which one would you prefer?
   - ☐ employment in aerospace or defense
   - ☐ employment in urban government

7. If both jobs were similar in pay and benefits, but one would require that you relocate to another part of the country, which would you prefer (assume no moving expense to you)?

   CHECK ONE
   - ☐ the aerospace/defense job in either case
   - ☐ the urban government job in either case
   - ☐ the job that would require that I move
   - ☐ the job that would not require that I move

THANKS FOR YOUR PATIENCE IN ANSWERING ALL THE QUESTIONS. PLEASE BE ASSURED THAT THE NATIONAL LEAGUE OF CITIES IS STILL TRYING TO FIND JOB OPPORTUNITIES FOR YOU. HAVE YOU CALLED TO FIND OUT WHAT THEY ARE DOING FOR YOU RECENTLY?

EXHIBIT B.2.:

INTERVIEW TECHNIQUE

TRAINING SESSION FOR ADAPT INTERVIEWERS

Objectives for the day

1. Become thoroughly familiar with report format
2. Increase experience with "non-directive," open-ended approach to interviewing
3. Identify and examine some assumptions about the field situations that might be encountered and the subjects that might be interviewed

Agenda for the Day

10:30	Presentation and discussion of the role of interviewing and interviewers in the evaluation
11:00	Presentation and discussion of the report format
11:30	Introduction to Exercise I: Role-playing
11:45	Round I
12:30	Break for lunch
1:00	Round II
1:45	Round III
2:30	Introduction to Exercise II: Team Development
2:45	Round I
3:15	Round II
3:45	Round III
4:15	Discussion
5:00	Set time for Friday session, collect preferences for interview sites, set tentative schedule for local interviews this week

Schedule for the Week

Monday: Initial Training Session
Tuesday:
Wednesday: } Initial Interviews with Local ADAPT participants
Thursday:
Friday: Final Review Session (set tentative field assignments)

NATIONAL LEAGUE OF CITIES

UNITED STATES CONFERENCE OF MAYORS

Dear _____________:

We were pleased to learn that Mr. _________________________ who participated in the Aerospace Employment Project, sponsored by the League of Cities/U.S. Conference of Mayors, is working for you.

The Aerospace Employment Project is a pilot program to test the convertibility of skills of professionals from the aerospace and defense industries to the needs of the public sector. All participants from the eastern half of the country attended an intensive one month's orientation introducing them to the problems of local government at the Massachusetts Institute of Technology.

MIT is now starting its evaluation of the orientation and its impact on the participants. A representative from MIT would like to interview Mr. _______________ and possibly yourself within the next few weeks as part of this effort. We urge you to cooperate with the interviewer. MIT's findings may have an important bearing on future manpower policies of the Federal Government.

Thank you very much for participating in the Project.

Very truly yours,

MICHAEL A. DINUNZIO
Project Director
Aerospace Employment Project

1612 K STREET, NORTHWEST WASHINGTON, D.C. 20006 TELEPHONE (202) 293-7300

ON-SITE INTERVIEW
REPORT FORMAT

General Remarks

Date Report was written:

Date and Time of Interview:

Interviewee (include position title):

Interview setting (Was it held in a noisy room or over a quiet cup of coffee? Were there interruptions?)

Interviewee's work environment: (Did the subject have an office to himself? What interests and work habits were reflected by the objects - e.g. reading material - the subject kept within easy reach? How does his/her environment campare to that of others in the agency?)

Interviewee's attitude and demeanor: (Was he uneasy, was he comfortable and relaxed throughout the interview, or did he change his behavior at some point? Did disturbances or the presence of others affect his willingness to respond to your questions? Did the subject shy away from some questions? Which ones? Why?)

Quality of the interview: (Did you make clear the purpose of the interview? Did the subject understand why you were there? Do you think you obtained the desired information? If not, why not? What kinds of problems did you encounter during the course of the interview?

Length of the interview:

REPORT FORMAT

①

FOCUS:	PERSPECTIVE: Adapter's View	 Boss' View	 Comparison Of Views
Organizational Environment:			
1. What are the organizations, functions/goals/ responsibilities?	X	X	X
2. What constituency(s) does the organization serve?	X	X	X
3. What are the major problems facing the organization?	X	X	X
4. What is the organization's structure?	X	X	X
5. What are the patterns (and sources) of influence in the organization?	X		
Organizational Role: contrast w/previous employ			
1. What is the ADAPTer's formal job description?	X	X	X
2. What does he actually do during a working day?	X	X	X
3. What are his organizational objectives/responsibilities?	X	X	X
4. What differences are there between his formal role and his actual role?	X	X	
5. How does his actual role compare to his formal role?	X		
6. Is the ADAPTer well suited to and/or satisfied with his actual role?	X	X	X
7. What are the frustrations of that role? (e.g. responsibility with undefined objectives, objectives with no responsibility, etc.)	X		
8. What changes in that role would be desirable? (e.g. increased autonomy, better use of organizational skills, etc.)	X	X	X

(2)

REPORT FORMAT

FOCUS:	PERSPECTIVE: Adapter's View	Boss' View	Comparison Of Views
Performance			
1. How well is the ADAPTer performing, relative to original expectations: (1) better than expected? (s) about as well as expected? or (3) not as well as expected?	X	X	X
2. What were original expectations about performance? (can include original skills, ability to pick up new needed skills, willingness to define and/or accept responsibility for tasks, ability to establish good working relationships, etc.)	X	X	X
3. What are the reasons for differences between expectations and experience?	X	X	X
4. How well is the ADAPTer performing in comparison to others in similar situations (in terms of length of time with the agency, in terms of level of position, and in terms of type of job): (1) better? (2) about the same? (3) not as well?	X	X	X
5. What are the reasons for differences?	X	X	X
6. In what specific ways is the ADAPTer's performance strongest and most effective? (Examples and incidents needed here.)	X	X	X
7. In what specific areas is the ADAPTer's performance weakest or least effective? (Examples needed here.)	X	X	X
8. In what areas is improved performance most likely? Why?	X	X	X
9. In what areas is improved performance least likely? Why?	X	X	X

③

PERSPECTIVE:

FOCUS:	Adapter's View	Boss' View	Comparison Of Views
Performance (con't.)			
10. How specifically did the orientation contribute to on-the-job performance? e.g. Did it help the ADAPTer as to what to expect? etc.	X		
11. Which has contributed most to effective performance: (1) the orientation; (2) on-the-job training (3) prior professional experience, or (4) prior experience in civic affairs? How?	X		
Adaptation			
1. What prior skills and experience have been most useful on the job? (Be specific as possible and distinguish between organizational/managerial skills and technical skills where you can.)	X		
2. Cite pertinent, specific examples of adaptations - especially those which are new to the agency.	X	X	X
3. Are the most useful prior skills and experience those that were expected to be most useful?	X	X	X
4. Are there additional opportunities for especially innovative adaptation of aerospace/defense skills and experience?	X	X	X
5. What are the major problems of adaptation? (These need not be restricted to on-the-job problems?)	X	X	X
6. What are the causes of those problems?	X	X	X
7. How, specifically, did the orientation contribute to or detract from adaptation?	X		

INTERVIEW PROTOCOL

1) Call Adapter

   - emphasize evaluation of orientation; play down any obvious reference to evaluation of him in his new position; that will emerge;

   - set time and place;

   - plan to see supervisor, at least to touch base (pay respects), at most to ask for opinion of ADAPT orientation program.

2) Call Supervisor

   - relate your visit to NLC letter of 23 February (most supervisors will be expecting you);

   - tell him why you're coming and that you would like to speak to him briefly to get his opinion of ADAPT;

   - arrange to meet right after ADAPTer's interview.

3) Be neat, don't fidget. And write your report immediately after the interview.

4) Do not accept a job until asked.

EXHIBIT C:

SUMMARY TABLES

TABLE 1: AGE BY EMPLOYMENT STATUS

Age	(N)	EMPLOYED Public Sector(%)	 Private Sector(%)	UNEMPLOYED (%)	TOTAL (%)
25-30	(13)	30.8	30.8	38.5	
31-35	(16)	18.8	18.8	62.5	
36-40	(22)	50.0	22.7	27.3	
41-45	(34)	20.6	38.2	41.2	
46-50	(37)	27.0	13.5	59.5	
51-60	(43)	44.2	11.6	44.2	
61+	(6)	0.0	16.7	83.3	
All Participants	(171)	31.6	21.2	47.4	= 100

TABLE 2: AGE BY EMPLOYMENT STATUS

Age	EMPLOYED Public Sector(%)	 Private Sector(%)	UNEMPLOYED (%)	TOTAL (%)
25 - 35	24	24	52	
36 - 45	32	32	36	
45+	33.7	12.8	53.5	
	31.6	21.1	47.4	= 100

TABLE3: MONTHLY SALARY IN LAST FULL-TIME PROFESSIONAL POSITION, BY EMPLOYMENT STATUS

Monthly Salary of Last Full-Time Job	EMPLOYED		UNEMPLOYED	TOTAL
	Public Sector(%)	Private Sector(%)	(%)	(%)
400 - 999 (7)	57.1	14.3	28.6	
1000 - 1199 (16)	25.0	12.5	62.5	
1200 - 1399 (16)	31.3	31.3	37.5	
1400 - 1599 (13)	46.2	23.1	30.8	
1600+ (26)	30.8	19.2	50.0	
N=(78)	34.6	20.5	44.9 =	100

TABLE4: NUMBER OF PERSONS SUPERVISED IN PREVIOUS POSITION, BY EMPLOYMENT STATUS

Number of Persons Supervised in Previous Job	EMPLOYED		UNEMPLOYED	TOTAL
	Public Sector(%)	Private Sector(%)	(%)	(%)
0 - 2 (61)	27.9	21.3	50.8	
3 - 5 (37)	21.6	27.0	51.4	
6 - 10 (31)	41.9	16.1	41.9	
11 - 20 (17)	58.8	17.6	23.5	
21 - 50 (12)	41.7	25.0	33.3	
51 - 100 (6)	16.7	16.7	66.7	
100+ (7)	0.0	14.3	85.7	
N=171	31.6	21.1	47.4 =	100

TABLE 5: FUNCTIONAL CATEGORY OF PROFESSIONAL EXPERIENCE, BY EMPLOYMENT STATUS

	EMPLOYED		UNEMPLOYED	TOTAL
Functional Category of Professional Experience	Public Sector(%)	Private Sector(%)	(%)	(%)
1. Process (23)	47.6	4.8	47.6	
2. Hardware (51)	24.4	26.8	48.8	
3. Software (25)	38.1	28.6	33.3	
4. Market,Proposals (17)	25.0	25.0	50.0	
5. Sales Engineering (7)	33.3	16.7	50.0	
6. Quality Control (19)	17.6	17.6	64.7	
7. Testing (14)	23.1	38.5	38.5	
8. Finance, Management, Information Systems (11)	60.0	0.0	40.0	
9. Logistics (16)	35.7	21.4	42.9	
N=183	32.1	21.4	46.5 =	100

TABLE 6: MONTHS OF UNEMPLOYMENT PRIOR TO ENTERING ADAPT, BY EMPLOYMENT STATUS

	EMPLOYED		UNEMPLOYED	TOTAL
Months of Unemployment Prior to Entering ADAPT	Public Sector(%)	Private Sector(%)	(%)	(%)
0 - 3 (20)	45.0	25.0	30.0	
3 - 6 (47)	36.2	25.5	38.3	
6 - 12 (56)	32.1	23.2	44.6	
12 - 24 (46)	19.6	13.0	67.4	
24+ (1)	0.0	0.0	100.0	
N=170	31.2	21.2	47.6 =	100

TABLE 7: EDUCATION LEVEL ATTAINED, BY EMPLOYMENT STATUS

Education Level Attained	EMPLOYED		UNEMPLOYED	TOTAL
	Public Sector(%)	Private Sector(%)	(%)	(%)
No BS-BA (19)	26.3	10.5	63.2	
BS-BA (69)	33.3	21.7	44.9	
BA+ (28)	25.0	17.9	57.1	
MS-LLB (42)	38.1	26.2	35.7	
PhD ScD (10)	30.0	20.0	50.0	
N=168	32.2	20.8	47.0 =	100

TABLE 8: FIELD OF HIGHEST DEGREE, BY EMPLOYMENT STATUS

Field of Highest Degree	EMPLOYED		UNEMPLOYED	TOTAL
	Public Sector(%)	Private Sector(%)	(%)	(%)
Management (30)	46.7	13.3	40.0	
Engineering (95)	28.4	24.2	47.4	
Science (39)	28.2	20.2	51.3	
Other (4)	50.0	0.0	50.0	
N=168	35.0	20.8	47.0 =	100

TABLE 9: LAST POSITION WITHIN COMPANY, BY EMPLOYMENT STATUS

Last Position Within Company		EMPLOYMENT Public Sector(%)	EMPLOYMENT Private Sector(%)	UNEMPLOYED (%)		TOTAL (%)
Policy Manager	(38)	34.2	21.1	44.7		
Engineering Manager	(28)	35.7	28.6	35.7		
Senior Engineer	(53)	28.3	22.6	49.1		
Operation Engineer	(49)	32.7	14.3	53.1		
	N=168	32.1	20.8	47.0	=	100

TABLE 10: STATE OF RESIDENCE, BY EMPLOYMENT STATUS

State of Residence		EMPLOYMENT Public Sector(%)	EMPLOYMENT Private Sector(%)	UNEMPLOYED (%)		TOTAL (%)
Alabama	(25)	32.0	12.0	56.0		
Florida	(24)	33.3	29.2	37.5		
NY,NJ, Conn.	(33)	27.3	21.2	51.5		
New England	(87)	32.2	21.8	46.0		
Washington	(2)	50.0	0.0	50.0		
	N=171	31.6	21.1	47.4	=	100

EXHIBIT D:

INTERIM REPORT TABLE OF CONTENTS

PROJECT ADAPT: REPORT #1 (Interim)

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EXHIBIT E:

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PROJECT ADAPT: REPORT #1 (Interim)

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EXHIBIT F:

INTERIM REPORT CONCLUSIONS AND RECOMMENDATIONS

VII. CONCLUSIONS AND RECOMMENDATIONS

Project ADAPT has - so far as can now be determined - succeeded in meeting its objectives. An educationally innovative, brief, on-campus orientation to urban affairs was devised and executed. Participants in the program, moreover, appeared to acquire enthusiasm for urban affairs as a field of work, an appreciation of the role of professionals in urban agencies, and an increased knowledge of basic urban vocabulary and issues. An evaluation of the educational program has been conducted, and information is available regarding the educational process itself, the impact of the orientation on participants and their reaction to the program.

While it is too early to evaluate the success of the general redeployment strategy employed by the NLC/USCM Joint Aerospace Employment Project, the ADAPT experience provides some important evidence about the effectiveness of a brief university-based orientation. Since participants in Project ADAPT were not a statistically representative sample of the nation's technical professional work force - either employed or unemployed, inferences drawn from the ADAPT experience should not be casually generalized. The adaptation of professional skills to new tasks appears to require both an opportunity for personal orientation and a period of specialized experience with the requirements of the new field. Unless a program can be tailored to fill the needs of a group of professionals whose specific interests and jobs are known in advance, this latter function is probably best filled by on-the-job practice. A general introduction to the issues in the new field and a period of personal role definition appear to be necessary stages, before the professional can efficiently take advantage of training on the job. ADAPT enrollees experienced considerable attitudinal change during the course of the project and most developed specific career objectives for the urban field. ADAPT experience indicates, moreover, that this process can be accomplished in a brief period, and that a university setting can offer the facilities necessary to its guidance. Particularly, orientation to a new profession requires the presence of a staff whose credentials can be respected by the participants, access to a range of people familiar with the field, and the existence of extensive technical facilities related to the field.

The experience of Project ADAPT also implies a number of specific guidelines for planning future programs of its type:

1. Orientation programs should focus on the broad issues salient to the professional field, offering insight into the environment the participant will encounter in his new role.
2. The curriculum itself should be tightly structured and organized. Participants need a clear view of the objectives of program elements and a sense of their interrelationships.
3. The primary role of the program should be viewed as the personal development and guidance of participants.
4. If jobs can't be arranged in advance, then the orientation program must be closely coordinated with job placement, to insure that placement activity does not interfere with the work of the orientation.
5. The function of transferring professional skills may be best accomplished on a regional rather than a national basis.

The curriculum of future academic career reorientation programs would benefit from the same emphasis on general issues that was employed in Project ADAPT. The diversity of backgrounds and job prospects in any large group of orientees tends to preclude a detailed job-training program. The greatest contribution of the university setting, moreover, seems to be the communication of broad concepts and issues rather than training people in specific skills. In addition, the diversity of opinion and educational styles incorporated into the ADAPT curriculum provides a successful model for future programs, since this type of wide-ranging orientation offers the enrollee a means of identifying and evaluating his personal position on critical urban issues.

Not only should an orientation program be general and diverse, it should also be tightly structured. The program elements of Project ADAPT which were the most successful and respected by the enrollees were those which had clear objectives, well-developed supporting materials, and a well-articulated relationship to the other elements of the orientation. Curriculum design, too, should be guided in part by the prior educational experiences of the participants. A highly structured curriculum which requires participant involvement and active response, either orally or in writing, will fill the needs of groups like the ADAPT enrollees. Innovation and experiential program elements, especially, require clear identification of their purposes and relationship to a stable intellectual framework.

These approaches to developing a tightly structured curriculum need to be coordinated through a very intensive use of time. Considerable program time should be devoted to overviews of program segments, and longer periods could be used for formal program elements themselves. Even meal times and weekends could be employed as opportunities for well-structured informal activities.

The personal development function of an academic orientation should be supported in a variety of ways. Personal counselling, etc. - is a crucial program element. An involuntary shift late in a professional's career is difficult; if a mechanism to deal with the resulting anxieties and tensions can be included in the orientation, the participants will be aided in one major facet of their personal adaptation, and the academic program will be strengthened. Likewise, guidance in preparing for a new field should be provided to all enrollees. The tasks of writing a resume and conducting a job search in an unfamiliar field, for example, should be supported by employment counsellors familiar with the enrollee's former field as well as the new field. Faculty and staff, too, should be selected from those who can provide the enrollees with personal "role" models.

The job development activities of the redeployment program must be planned in such a way that they do not interfere with the reorientation program. When possible, of course, jobs should be identified and matched to specific participants prior to the academic program. In programs where enrollment is not limited to people who have already received employment, the orientation should be designed to insure that the mechanism of job matching is clearly understood and "visible" to program participants. The visibility and access needed to permit participants to feel confident about the job-matching process will place heavy demands for coordination on the university providing the orientation and on the agency matching participants to jobs. Geographical proximity between these organizations would, of course, facilitate the coordination of activities;

but an even more close administrative cooperation is necessary if the program is to succeed.

Future programs might realize several advantages if they were conducted in a number of locations around the nation, each focusing on a geographical region. Each location could then supplement the academic faculty with local agency professionals and elected officials, offering the kind of access to practitioners that was markedly successful in Project ADAPT. Since dormitory residence does not seem to affect enrollee participation, the program could also draw its participants from nearby areas, thus minimizing costs to participants and program sponsors.

Structuring a program in small geographical areas, then, could address both sides of the regional labor market by involving local employers and local job seekers in the program. In this way, public awareness could be more easily raised and local media employed to make the program visible to state and local agencies. Instructional efficiency would also result from tailoring programs to the overriding urban problems and specific agency structure of the area.

EXHIBIT G:

INTERIM REPORT SECTION LISTING ATTRIBUTES OF PROGRAM PARTICIPANTS

IV. PROGRAM ENROLLEES

Attributes*

The participants in MIT's aerospace orientation represented a wide range of socio-economic backgrounds and experiences within the aerospace industry. The typical participant was 45, married with children, and held a bachelor's level degree in an engineering field. Usually, he worked as an engineer involved in the production of aerospace hardware and was consequently part of the middle-level of his organization. On the average, he had been unemployed for 8 months prior to his acceptance in Project ADAPT.

The distribution of participants by state was nearly in the proportions previously specified by NLC/USCM -- half from Massachusetts, and roughly a sixth each from Alabama, Florida, and New York. In addition, one participant from the state of Washington attended the MIT rather than the Berkeley program.

The modal educational level was a B.A. or B.S., with only 12% reporting no bachelor's level degree and only 4 participants with no college experience. An additional 16% completed some graduate work, another 25% reached the master's degree level, and 7% the doctoral or professional degree level. Not reflected in these figures are the additional training programs characteristic of career development in the engineering fields. Nearly all ADAPT participants reported attendance in at least one (usually several) specialized training programs ranging from computer technology to health services planning.

The educational field reported by applicants, then, represents a somewhat narrow statement of educational

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* Appendix lists these data in more complete, tabular form.

background. Most ADAPT participants with advanced degrees were involved in different fields at the undergraduate and the graduate level, and most of them had several kinds of specialized training. In the aggregate, the fields represented do provide a sense of the kind of experience shared by participants and the range of backgrounds represented. By far, the largest segment (54%) described their highest degrees as falling within the classic engineering disciplines — most often, electrical, aeronautical, mechanical, or general engineering. Of similar background was the next largest group (16%), who reported degrees in the physical sciences, including physics and mathematics. A segment of roughly the same size (14%), on the other hand, came from educational backgrounds in management. Still other participants completed educational programs in art, the social sciences, law, the life sciences, and geology.

Job experience, to some extent, paralleled participants' educational backgrounds. Most of them worked in classic engineering roles, with the rest spread over a wide range of jobs. For purposes of comparing aerospace to public sector jobs, it is useful to differentiate between three types of aerospace roles: those directly involved with the production of aerospace technologies, those responsible for establishing the process by which a product is manufactured, and those who serve in supporting roles. By this categorization, the largest number (37%) came from jobs which involved the direct production of hardware (equipment or component designers, production workers, supervisors of product-centered projects) or from those which centered on the production of software systems. The second largest single group (13%) worked in such process-related jobs as industrial engineering, production management, or process design. The experience of the remaining half was divided among a large number of supporting activities: 14% in marketing and finance, 17% in testing and quality control, 3% in sales, 7% in logistics. A final 8% worked in a diverse range of nonengineering activities.

The levels at which these ADAPT participants worked is another significant indicator of their employment histories. In general, they worked as managers in engineering-related projects or they acted as practicing engineers at various levels of responsibility. The largest group (62%) worked as practicing engineers, either in the capacity of senior engineers (33%), as operative engineers (28%), or in only 2 cases, technicians. The remainder of the group worked in various management roles, primarily as engineering managers (17%) (in charge of the operations of an engineering project) or as managers with general administrative duties (15%). An additional 6% worked in relatively independent managerial roles as company presidents or vice presidents and as partners in business ventures.

Despite the relatively high frequency of managerial positions represented in the experience of the group, average monthly salaries did not appear to be particularly high relative to the economic structure of the aerospace industry or to the average age of the participants. The median monthly salary reported by ADAPT participants was $1500, with only 7% reporting monthly incomes of more than $2000. Similarly, the supervisory responsibilities reported by participants are perhaps less broad than might be expected in management and production jobs. Almost 60% of the participants indicated that they supervised less than 5 other people. In part, this supervisory pattern may be due to the "project" structure of the aerospace industry, and in part to the abilities of those laid off from aerospace jobs.

In addition to employment and educational experience, a large portion of program participants reported participation in civic/social and professional organizations. Less than one-fourth reported no previous involvement in civil/ social activities, and the remainder cited membership in at least one and usually several civic/social organizations. Over 70, moreover, had held offices in the organizations to which they belonged. While they were active in civic/ social concerns, ADAPT orientees were not involved significantly in the operation of local government. Only 10 reported that they had held a minor local office, and less than 30 had participated in planning and government in any capacity. (20% reported previous work in the public sector.) Membership in professional organizations followed a similar pattern. The extent of participation was wide, but primarily in engineering and scientific organizations.